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ABSTRACT

Examiners from the Organisation for Economic Cooperation and Development were asked by Greek education authorities, seeking criticism and the assurance that they were on the right road for Greece compared with other countries and running in the right direction, to consider education policies in Greece as they appeared in 1979, a year of many reforms. Part 1 contains the "Examiners' Report." The examiners pinpointed several issues that they considered critically important. They were anxious to know, for example, to what extent K-12 curricula and teaching methods had been modified with the advent of 9 years of compulsory schooling. They raised questions about the efficiency and equity of the selection system. They wanted to know the reasons for creating two types of upper secondary education school and whether the technical vocational type is suitably equipped to challenge comparison with the general education type. They inquired whether the financial and material resources made available were sufficient to make the reforms effective. Part 2 provides the Greek delegation's answers to the examiners' questions. Part 3 contains a summary of the background report prepared for the examiners by the Greek Ministry of Education, describing the education system before and after reforms. (RM)

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PREFACE

On two previous occasions the OECD reported on aspects of education in Greece. The first review was carried out under what was then the OECD Directorate for Scientific Affairs and focused on the education and training of scientists, engineers and technicians in relation to the country's then and future needs (*Policies for Science and Education, Country Reviews: Greece,* Paris, 1962). The second review was conducted as part of the so-called Mediterranean Regional Project, which was designed to help relate educational planning to economic growth and social advancement in six countries (*Education and Development Country Reports: The Mediterranean Regional Project: Greece,* Paris, 1965). According to the preface of that report: "The main objective of this exercise was to specify in quantitative terms the changes that must be introduced into the education system in order to meet the needs arising out of population growth, rising incomes, increasing social demand for education, and the growth and structural transformationof the economy".

Several of the proposals made in these two reviews have since been adopted and a few have influenced the course of educational development in Greece. Other proposals are still under consideration or have been set aside as unsuitable in the changing context. At the same time, the Greek authorities have increasingly initiated changes and developed new goals in the light of their own appraisal of changing needs.

The examiners were asked to consider education policies in Greece as they appeared in 1979, prior to the change in government resulting from the October 1981 election, at a time when far-reaching reforms had only just been introduced and the education system was necessarily in a state of flux. With the momentous step of raising the compulsory school-leaving age by three years and restructuring the school system accomplished, the Greek education authorities were seeking *bona fide* criticism and the assurance that they were on the right road for Greece and running in the right direction compared with other countries.

Part One of the present volume contains the Examiners' Report.

The centre of the examiners' attention is the school system, but they find it impossible to answer fundamental questions affecting the schools without reference to the post-secondary system. Some of the most important questions arising in this connection, particularly insofar as they concern teacher supply and quality appear to them matters for a further study in the near future.

They pin-point several issues that they consider critically important. They are anxious to know, for example, to what extent the curricula and teaching methods at the primary and secondary levels have been modified to take into account the advent of nine years of compulsory schooling. They raise questions about the efficiency and equity of the selection system. They want to know the reasons for creating two types of upper secondary education school and whether the technical/vocational type is suitably equipped to challenge comparison with the general education type. They inquire whether the financial and material resources made available are sufficient to make the reforms effective. At the same time, they warmly praise the bold spirit of the education authorities and their determination to ad[illegible] their decision-making and policy machinery to change.

In Part Two the Greek Delegation to the customary review meeting held in Paris in November 1980 gives extensive answers to the many questions posed by the examiners.

In their work the examiners were enormously helped by a full Background Report *(Educational Policy and Planning: Educational Reform Policies in Greece)* prepared by the Greek authorities, which dealt frankly with many major issues and provided a wealth of interesting detail. A summary of this report is presented as Part Three of the present volume.

THE OECD EXAMINERS

Miss S. Browne	Senior Chief Inspector Department of Education and Science United Kingdom
Mr. U. Lundin	Under-Secretary of State Ministry of Education Sweden
Mr. H. Schmidt	Secretary-General, Federal Institute for Vocational Education Germany

MEMBERS OF THE GREEK DELEGATION

Mr. V.	Kontoyiannopoulos	Under-Secretary for Education
Mr. M.P.	Sakellaridis	President of KEME
Mr. St.	Paleokrassas	Vice-President of KEME
Mr. C.	Karamitsanis	Counsellor to the Minister of Education
Mrs. L.	Polydorides	Counsellor to the Minister of Education
Mr. G.P.	Spyropoulos	Counsellor for Education, Greek Embassy, Paris.

Part One

THE EXAMINERS' REPORT

I

THE BACKGROUND TO EDUCATIONAL REFORM

1. The country and its traditions

In 1976 Greece embarked on structural reforms of its school system, the effects of which are bound to be far-reaching. What is the national background against which these reforms were introduced and are now being implemented?

With a total area of 131 990 square kilometres, Greece is quite a small country but it offers remarkable geographical variety. What other country can boast of a constellation of more than 2 000 islands and such a contrasting landscape of high mountains, valleys and seas? Although some communities inhabit remote areas, communications by land and sea are good and Greeks like to feel that from ancient times they have been a close-knit people. Their homogeneity rests on the three pillars of an ancient culture, a cohesive religion and a deep attachment to family life.

Greeks are vividly conscious of their Hellenic and Byzantine origins. The outsider may wonder whether there is not a sharp discontinuity between the civilisation of the sixth to fourth centuries BC and the present, but many modern Greeks speak with apparent conviction of the continuity between themselves and the world of Homer, Plato, Aristotle and Sophocles. Despite their uneven fortunes since the golden period of Periclean Athens, despite the four centuries of Ottoman occupation between the fall of Constantinople in 1453 and the emergence of the modern State in 1829, they feel themselves descendants of the Greeks of antiquity. This helps to explain why they have adhered so strongly to teaching ancient Greek literature in the schools and why classical texts have played so dominant a part in the school curriculum. At the same time, modern Greek literature is flourishing as witnessed by the Nobel prizes awarded to George Seferis (1963) and Odysseus Elytis (1979).

Religion, which symbolises the Byzantine tradition, also plays an important part in the life of Greece. The power of the Greek Orthodox Church is great. It stems from the critical role played by the Church during the centuries of occupation when the monasteries and the village priests were the focus of independence and the torch bearers of the traditional culture and values. Today 97 per cent of the population adheres formally to the Church and a very high proportion of these adherents are practising. The Church is constitutionally privileged by the State and, though exercising no direct political power, it has considerable moral and legal influence not least over the education system and not only through compulsory religious instruction in the schools. Significantly, the public education system is controlled by the Ministry of National Education *and Religions*. The fact that the structure of the Greek Orthodox Church is autocephalous also means that the clergy wield considerable influence at the community level.

Family solidarity is a remarkable feature of Greek society especially when contrasted with so many advanced industrialised countries where the ties of family life are becoming weaker. To a very large extent young people respect their elders and accept their values. The problem of an inter-generational conflict so much publicised in many other countries is only now beginning to appear. Parents are devoted to the upbringing of their children and are all the more able to fulfil their parental duties because in general they have smaller families. After marriage women tend to give up paid employment in order to stay at home. As a result, Greece has the lowest female labour force participation rate in Western Europe. Indeed, from the point of view of countries where there is strong emphasis on the equality of the sexes, not to speak of women's liberation movements, in Greece certain aspects of the law, especially family law, do not conform with modern ideas.

Notwithstanding the richness of its culture, Greece is neither chauvinist nor insular in its outlook. On the contrary, it cannot but be affected by its geographical position in the eastern Mediterranean where it lies between East and West. Throughout history many peoples have come into Greece from Egypt, from Asia Minor and from the Balkans, the Middle East and North Africa. In modern times Greeks have emigrated in large numbers to the United States, where it is estimated today there are at least 2 million of them, and to Australia where there are almost 500 000. Overseas Greeks represent about 30 per cent of the population in the homeland. In addition, a large number of Greeks are working temporarily in Western Europe, notably in Germany, and many post-secondary level students are attending foreign colleges and universities. Emigration continued apace until 1974 but since then has declined to a trickle.

Greece has had remarkable success during the last three decades in building up its economy and raising the standard of living, despite the ravages of the Second World War and the bitter civil conflict that followed it. From providing the greater part of its output, agriculture now provides only 20 per cent, though it should be noted that the volume of agricultural output has steadily increased. The annual increase in the GNP has been at a regular high rate of around 6 per cent since about the mid-fifties. The tourist trade is flourishing. Despite its small population, Greece commands the largest merchant fleet in the world. In its 1979 Economic Survey of Greece, OECD records that:

> "For the fourth year running, expansionary policies sustained a fairly rapid growth of GDP in 1978 – 6 per cent – which is just less than 1 percentage point below the longer-run trend rate up to 1974 crisis. This relatively better growth performance than in the rest of the OECD countries has been accompanied by a fall in recorded unemployment to a rate of less than 3 per cent since 1977."[1*]

Economic success has inevitably brought with it social problems, some of which are acute. There are regional income disparities. Inflation is difficult to contain and affects some social groups more severely than others. As in all countries experiencing rapid development there has been a mass flight from the land and a corresponding surge in the urban population. Some rural areas are weakened by the effects of depopulation and at the same time the main urban areas are struggling to cope with the effects of too sudden an expansion. Seventy per cent of the total population of 9.5 million now live in urban or semi-urban areas, 40 per cent of them being concentrated in the three conurbations of Athens, Patras and Salonika. The Athens area now has a population of almost 3 million, which has been absorbed only at the cost of overcrowding and much disfigurement of its traditional beauty. The unemployment figures are very low but may mask some seasonal unemployment and underemployment in agriculture, as well as more serious employment problems for young people than for adults.

Greece formally became the tenth member of the European Economic Community from 1 January 1981. The OECD Economic Survey shares the view of the government that:

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* See References page 47.

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"Economic membership can be expected to confer considerable advantages and opportunities to the Greek economy but it will also imply, over time, significant adjustments in the structure of production, demand and costs if the new opportunities are to be exploited and competition from some of the most advanced industrial nations are to be successfully met."[2]

These summary facts about Greece are all relevant to its approach to education. Its looking to the past and respect for tradition account for a certain rigidity which only now shows signs of breaking. Its religious faith and coherence are reflected in the Orthodox Church's influence over education. Its desire to make economic progress within the European Economic Community has led to a determined commitment to vocational and technical education. Its esteem for education as an intrinsic good comes from its admiration for the peaks of intellectual achievement attained by the ancient Greeks. An entry in the official handbook introducing foreigners to Greece highlights the national regard for education: "The starting point and the support of the future of the Greek nation is education. It is on education that our economic progress and the raising of the country's spiritual and cultural level depends".

2. The road to educational reform

But the critical question is: What sort of education?

Until the mid-fifties the Greek education system had experienced only minor reforms throughout the course of its previous history. Thereafter the need for major reforms began to be recognised and significant changes began to take place. As the Report prepared by the Greek authorities[3] (hereinafter cited as "Background Report") suggests the 20-year period between 1957 and 1977 fell into three phases: 1957-63; 1964-65; 1974-77. To this has to be added a fourth period, namely that of the dictatorship from 1967 to 1974.

The period 1957-63 was characterised by a rapid quantitative growth both in the demand for education and in educational provision. There were official discussions about the need for structural and qualitative reforms which led to the enactment of Law 3971/1959. The opposition party (EK) espoused the cause of educational reform, finding no difficulty in choosing targets to attack, since the quantitative expansion had imposed heavy strains on an already obsolescent system. The EK Party designed a comprehensive plan for educational reform which it instantly attempted to implement on acceding to power in 1964. This plan, which was masterminded by the distinguished educationist, Papanoutsos, aroused enthusiasm among teachers and students. It called for the extension of compulsory schooling from six to nine years, instituted the *academaiko apolytirio* (similar to the baccalauréat) as the formal requirement for entering a university and recognised the popular Greek language (the *demotike*) as the language of instruction in lower secondary education.

The implementation of the plan was interrupted, however, when the EK ceased to govern in 1965. The period of dictatorship then supervened and there was no more talk of a comprehensive educational reform. Significant for the future, however, was the decision to implement an earlier proposal to establish centres for technical and vocational education (the KATEEs) at the tertiary non-university level.

The dictatorship fell in 1974 and the new government determined to act expeditiously to introduce a comprehensive education reform. The word "expeditiously" is justified because the government was fully aware that problems would abound, that mistakes would be made and that it would be laid wide open to criticism. But it firmly believed that major educational reforms were urgently necessary for the sake of the economy and the general vitality of the society and reasoned that previous reform proposals had not been implemented precisely because of a lack of will or ability to act promptly in the face of critical opposition.

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In Greece, education is so sensitive a public issue that no democratic government can afford to ignore its political importance. "It is the dream of every parent", we were told not once but several times, "to see his children go to university". Nevertheless, for a new government, faced with many domestic social and economic problems as well as external ones, to push through a large package of educational reforms in a simultaneous thrust is quite remarkable. Yet in 1975, governmental meetings on the future of education were held under the chairmanship of the Prime Minister himself and with the participation of the Minister of Education, the General Secretary for Education and Mr. Papanoutsos on behalf of the opposition, at which broad guidelines were laid down. In short, the government through its Prime Minister committed its authority to the reform of an essentially static system. Indeed, during our visit we were told, on a number of occasions, that for the Prime Minister, education and health were the two top priorities.

Three principal concerns were cited by one of the then Vice-Ministers for Education to account for this commitment. They are concerns to which any OECD country would readily subscribe:

> "The first is the concern over the intellectual, cultural and social development of the young and their evolution into conscientious and free human beings able to cope with contemporary pressures. The second is the transmission of knowledge and the development of cognitive abilities, which will enable students to pursue the scientific disciplines. The third is the provision of a relevant body of cognitive knowledge and vocational training to all future participants in economic activity"[4].

Underlying these concerns, however, is a set of specific objectives, also cited by the Vice-Minister, designed to modernise Greek education and to tie it more closely to social and economic exigencies:

> "... the objectives set forth through educational policy are (*a*) to create the human resources necessary for the economic, social and cultural development of the country; (*b*) to increase the productivity of public investment in education; (*c*) to reduce inequality in educational opportunity; (*d*) to contribute to the betterment of social and cultural life by increasing participation in the education process; (*e*) to increase the income of the trained labour force; (*f*) to increase the productivity of labour through technical and vocational training; (*g*) to reduce the number of untrained graduates of classical education; (*h*) gradually to eliminate the entrance examination to higher education (technical colleges, teacher colleges, universities) and at the same time the "quasi-education" of the *frontisteria**; to develop middle-level technicians and bridge the present gap between highly educated labour and unskilled workers."[5].

In succeeding chapters we hope to show how the characteristics and aspirations of modern Greek society, as we have attempted to describe them, condition theory and practice in education today and how the force of tradition gives rise to a conflict with the objectives of governmental policy which sooner or later will have to be resolved. We shall discuss the main problems in the several sectors of the education system which in our view have tobe overcome and then consider the resources and instruments available for bringing about the desired changes.

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* See below, Chapter III.

II

PRE-PRIMARY AND PRIMARY EDUCATION

1. Pre-primary school

Enrolments in pre-primary education, usually for infants from three to five, are not high by comparison with many OECD countries but are nevertheless on the increase. Thus, the number of infants in kindergartens was 110 000 in 1973-74, 130 000 in 1977-78 and about 180 000 by the end of 1980. The percentage of infants in the age group participating in the pre-school year has increased from 29.7 in 1970 to approximately 50 in 1980.

In the past, pre-primary education was very largely provided in private schools. Since the mid-sixties, however, public provision has expanded at such a rate that today it represents about 90 per cent of the total. At the same time, the Ministry of Education has largely assumed responsibility for it in place of other social services.

There is, as yet, neither a public nor professional sentiment that pre-primary education may have a decisive effect on the personal development of the child and that children who experience it start primary education with a distinct advantage over those who do not. Thus, we heard no one raise the egalitarian argument that the sooner children from disadvantaged cultural backgrounds start to learn alongside other children, the better will be their prospects for making good progress in the primary school. As the number of enrolments rises, however, this sentiment is bound to make itself felt. When it does, the anomaly will become evident that pre-primary facilities are unevenly distributed on a geographical basis. In view of this, the authorities might well consider the adoption of a phased plan of development for pre-primary education. This could include attention to: disseminating information about its value as a developmental and socialisation process; the resource implications of providing facilities for the majority of five-year-olds in all rural and urban areas; modernising the training programme for pre-primary teachers; strengthening the links between pre-primary and primary education.

2. Primary education

Primary education begins at about the age of six* and lasts for six years. Before the recent reform it was exactly parallel with compulsory schooling, which now additionally includes the first three-year cycle of secondary education. It is free, although pupils are usually expected to provide their own writing materials. Primary education has been much less affected by the reform than secondary education and we found general satisfaction with its present performance. We ourselves noted the warmth of relations within schools and between parents and teachers. One educationist, who had spent some time in other countries and who felt qualified to make realistic comparisons, summed up the situation in terms which would meet with common assent. Social differentiations are not pronounced; few children experience language problems*. Many mothers are not in paid work and concentrate on caring for their children which is all the easier since families are small. Few children are emotionally unstable. Almost all parents encourage their children at school and most try actively to help them; older children assist the younger ones. The only problem, as he saw it, was that bright and active children were not sufficiently motivated. This assessment undoubtedly has an element of the idyllic – how much help, for example, can unlettered mothers in rural areas give to their children? – but we have no reason to doubt its essential accuracy. Nevertheless, we identified four matters which call for attention**: one- and two-teacher schools; the problem of repeaters; treatment of children with special learning needs, including low achievers and the physically and mentally handicapped; the opportunity to reconsider the aims and practices of the primary school in view of the extension of compulsory schooling***.

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* A child who reaches the age of five-and-a-half at the start of the school year may also enrol.

One- and two-teacher schools

78 per cent of all rural primary schools and 59 per cent of all primary schools are staffed by only one or two teachers****. However, whereas in 1976 there were no fewer than 3 498 one-teacher schools they catered for no more than 7.6 of the primary school population and enrolments never exceeded twenty. The advantages and disadvantages of this situation are familiar enough to educational administrations in many OECD countries. The advantages are that pupils can work in a secure environment and learn from one another, and that the teacher, or teachers, if there are two, can get to know intimately the strengths and weaknesses of each pupil, always provided, of course, that they have the requisite skills and motivation. Significantly, it is the practice today in several OECD Member countries for the same teacher to accompany the same class through three, four or even more years. The disadvantages are that the teacher is obliged to cover too wide a curriculum and to leave pupils in a given age group to their own devices for long periods of time. Moreover, the form in which tasks are set during these periods is as a rule very restrictive. As the authors of an earlier OECD report stated:

> "Of 9 300 primary schools in the country, 4 300 are single-teacher schools. This cannot make for efficiency. It means that children of six different age-groups, from 6 to 12, have to be taught together by one teacher; and he, or she, must never be ill."[6]

Moreover, the consequences for pupils exposed to an incompetent teacher for the whole of their primary education can be disastrous.

On the competence of teachers in one- and two-teacher schools we are scarcely qualified to comment from first hand observation. We were informed by several experienced administrators, themselves former teachers, that pupils in one- and two-teacher schools led happy and successful school lives and did not enter secondary education at a disadvantage vis-à-vis pupils from larger schools. Our own limited visiting of such schools showed what interesting results could be achieved by dedicated and skilled teachers. On the other hand, the statistical evidence shows that young and inexperienced teachers are disproportionaltely represented in the rural schools, seniority carrying with it the opportunity to teach in an urban school.

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* This statement was contradicted by a teachers' representative (see page 14).

** These matters have been reflected in measures adopted since the examiners' visit.

*** We discuss below in Chapter V the training of teachers as an important issue affecting the performance of schools at all levels.

**** Statistics for 1975-76 showed that 19 per cent of the primary school population was attending a one- or two-teacher school.

One obvious, though initially costly, solution to the one- and two-teacher school problem in at least some areas might be to set up centrally located primary schools and this is indeed the preferred policy of the Ministry of Education. It runs counter to the deep desire of most local communities to preserve their village schools. We can only point out that a decision about whether to retain or abandon village schools has to be made in the light of broad social and environmental as well as pedagogical considerations. To abolish a village school can sometimes lead to the effective destruction of a community and a way of life. Furthermore, it is to be noted that the education authorities in a number of OECD countries are beginning to be apprehensive that the spectacular rise in transport costs may render consolidated schools more costly than isolated schools.

We should like to put forward for the consideration of the Greek authorities the possibility of employing peripatetic teachers to supplement the work of the single teacher, especially in those schools where the children are seen to be performing below the national average.

Repeating

The situation until the beginning of the school year 1980-81 was that by no means all pupils completed primary school in the normal period of six years. Some 20 per cent took between seven and nine years because of the custom of requiring pupils who failed to reach a given standard at the end of any year to repeat that year. A recent report by OECD recorded that between 10 and 15 per cent of the first year entry were required to repeat^7.

Two obvious consequences followed. First, simply as a statistical fact, the total enrolments in primary education exceeded the total number of children in the 6 to 12 years age group. Secondly, on a pedagogical reckoning, the age range of pupils in a given class was likely to vary considerably, especially in the upper forms: for example, the sixth year might well contain 13, 14 and 15 year-olds alongside 11 and 12 year-olds*. (Girls, it should be noted, showed a tendency to repeat less than boys.) Nevertheless, prior to the recent reform 95 per cent** of the initial intake to primary education eventually obtained a leaving certificate. It could be claimed, therefore, that whatever the drawbacks of repeating, justice was seen to be done in terms of eventual certified achievement. Against this had to be set the often irreparable loss to the pupil of opportunities for further study beyond the compulsory period.

We believe, therefore, that the authorities are right to abolish repeating as from September 1980. Much of the failure in the very first year may be due to pupils being unprepared for school. Counter measures might include the spread of pre-primary education, very early diagnosis of and assistance to pupils who seem likely to fail and, in general, early identification of groups of pupils with mental or physical handicaps or learning disabilities and more differentiation of learning tasks so as to ensure that each pupil can make adequate progress. The authorities will also no doubt wish to monitor closely the effects of abolishing repeating.

Groups with special educational needs

A proportion of repeaters, probably a high one, have been children with special educational needs arising from physical, mental or sensory disabilities or mental or behavioural problems. One teachers' representative asserted, for example, that a considerable number of children had problems in mastering reading and writing skills. In accordance with the policy now adopted by many OECD countries[8] we are in favour of children with special educational needs being integrated in the ordinary schools, unless those handicaps are so severe as to necessitate physical separation. At the same time, it is important that the problems of such pupils should be identified at the earliest possible stage through diagnosis by trained professionals – pediatricians, psychologists and social workers as well as teachers – and that suitable educational treatment should be applied. Slow learners probably need the help of teachers specially trained to deal with pupils who face literacy and numeracy problems, although the training of all teachers should include some reference to the differential learning needs of children. We are pleased to hear of the decision, following the establishment of nine years of compulsory schooling, to relax the system of annual testing and to make it easier for pupils to proceed from one year to the next. In effect, this amounts to a changed concept of learning development whereby each child is enabled to find its own level within its particular age cohort.

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* Some of the children who appear particularly backward at the end of six years may be transferred to a special school.

** 98.5 per cent in 1978 and 99 per cent in 1980.

Consequences of extending compulsory schooling

One of the invaluable consequences of the extension of compulsory schooling is that the entrance examination to the gymnasium has been abolished, thereby obviously relieving the pressure both on teachers and pupils. We hope, therefore, that full attention will be given to the variety of ways in which the rigidity of the primary school curriculum may now be modified and teachers and pupils encouraged to turn more to individualised work. Instead of having to memorise so many facts the children should be helped to develop learning skills and the ability to think critically for themselves. A first step has been taken by introducing questions at the end of each unit in the new textbooks but more needs to be done to ensure that memorisation does not loom too large. Some teacher trainers to whom we spoke were well aware of the importance of individualised learning and assured us that many teachers had the sensitivity and capacity to adapt their methods to it given the appropriate encouragement. As we understand it, they now have that encouragement from the authorities.

When asked about the articulation of the primary school with the gymnasium a group of administrators whom we met said that they were treated as quite separate institutions, although there was some overlap of arithmetic textbooks for the sixth and seventh years. Staff members of KEME*, however, saw the need to articulate the two levels in deliberate ways. We believe that plans for articulation should be worked out and put into practice as soon as possible. The links between school years have to be real ones so that, for example, a profile of each child's performance goes with him or her from one level to another.

Other issues

Certain issues are common to primary and secondary education but since they affect secondary education more seriously we discuss them in the next chapter. They include: an overloaded curriculum; regional variations in educational provision; the shortage of school buildings; the use of prescribed textbooks; the language of instruction. In a subsequent chapter we propose to discuss the vital importance of capitalising fully on all the resources of individual teachers.

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* Centre for Educational Research and In-service Training of Teachers (see page 45).

III

THE REFORM OF SECONDARY EDUCATION

The reform of 1977 has affected secondary education more than any other sector of the entire system, giving rise to resource, qualitative and equity issues. We begin by baldly sketching the major changes before proceeding to offer our analysis of what appear to us the key issues.

Before the reform, secondary level education was divided into two branches: general secondary education (the six-year gymnasium); lower and middle technical and vocational education.

General secondary education covered six years, divided into two cycles of three years but not requiring pupils to pass a transitional examination. The great majority of the secondary school population attended this most prestigious branch of schooling – the gymnasium – the only avenue to the universities. The curriculum for the first cycle was intended to be general and for the second more specialised. At the end of the first cycle pupils could choose between proceeding to the second cycle – the track to higher education – or entering a technical school. Nearly all took took the former option. In both cycles there were many dropouts.

Technical education was also divided, in principle, into two cycles of three years – lower and middle – but in practice most of the intake into the second cycle came from one of the two cycles of general education. Moreover, many students followed evening courses which, consisting of fewer hours than day courses, necessitated attendance for at least one additional year, that is, seven rather than the normal six years.

Vocational education was unsystematised. Its duration might be from a few months to several years. Control was by other ministries in addition to the Education Ministry.

In 1974-75, 67 per cent of students in technical and vocational education were in private institutions. Graduates from these institutions were not eligible for university admission.

1. Elements of the reform

As a result of the reform, secondary education remains divided into two cycles of three years, but the first cycle has become compulsory for all pupils. In other words, Greece has extended the length of compulsory schooling from six to nine years and opened up the first cycle of secondary education to the whole age group*. The term "gymnasium" that used to apply to the six-year general secondary school now applies only to that first cycle.

Primary school leavers now proceed automatically to the gymnasium without having to pass an entrance examination. At the end of the gymnasium students may:

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* Some of the repeaters discussed above will not necessarily complete the cycle.

i) seek a job;
ii) enter a technical/vocational school without passing an examination;
iii) enter a general education or technical/vocational lyceum after passing a nationally administered examination. There are separate examinations for the two types of lyceum and students have the right to sit for both and to base their eventual choice on the results achieved.

The second cycle (now called the "lyceum") is divided into two types of school: the general and the technical vocational lyceum. The general lyceum permits a preference between a humanities or sciences oriented curriculum (as in the old "klassiko" and "praktiko" gymnasium). The technical/vocational lyceum retains general subjects, but offers a number of job oriented subjects. Parallel to it, but at a lower academic level, there is established the technical/vocational school.

Implications of raising the school-leaving age

It has to be a bold government indeed that extends the duration of compulsory schooling by three years – i.e. 50 per cent – at a single stroke, especially in a country with already limited educational resources. Why did the government take such a seemingly audacious leap forwards? First, as we have already seen, there was a popular head of steam behind educational expansion and a favourable political climate. Second, it fitted in with the strategy of immediate rather than gradual implementation of the whole set of reforms. Third, the government was aware that the impact of the prolongation was likely to be less shattering than might appear at first glance to an external observer. For one thing, by 1976, 67 per cent of primary school-leavers (or 63 per cent of those who had started primary school) were already proceeding to the gymnasium. If it were true that about 50 per cent of these did not complete the full six years and that attendance was higher in urban than in rural areas, the intake to secondary education, nevertheless, already constituted two-thirds of the age group. The raising of the school leaving age (ROSLA) by three years entailed finding some 114 000 new places for what amounted to 36 per cent of the age group. For another reason, the government could count upon an adminstrative service, a teaching force and a generation of parents already accustomed to scant resources.

The fact remains that the problems to be faced were – and remain – daunting; significantly, the reform plan of 1964 had called for gradual phasing of the three extra years of schooling over ten years. The time horizon for implementing the reform of 1976 was desperately short, especially in view of the already lean resource base. There was no time for more than contingency planning; there was the necessity of producing a new curriculum and new textbooks in haste; there was a critical shortage of building, teaching aids and equipment; the teachers were unprepared and to teach some new subjects there were no trained teachers; there were obviously going to be some incalculable consequences for the functioning of the rest of the education system as well as for the labour market.

To discuss all the ramifications of the reform of secondary education and its unforeseen or unintended consequences would require a volume by itself. The Background Report takes up a good number of aspects. For our part, we think it will be most useful to identify the really outstanding issues.

The question of purpose

It is vital to establish unequivocally what is the fundamental purpose of the extended three years of compulsory schooling. Is it the base of the secondary cycle or the summit of common schooling? Is the intention simply to offer the "same as before" to all young people in the relevant age cohorts – that is, the chance to compete in the race for university admission? For example, we were several times informed that the gymnasium leaving certificate has no intrinsic value – "it will not help you get a good job" – and that education during the seventh to ninth years is viewed not as an end in itself but only as a one-way street to post-secondary education.? Or, is the intention to establish a nine-year common school existing in its own right and offering every boy and girl at termination, whatever their next destinations, a full and satisfying education? If it is the latter, as we hope, then there are implications for the content and structure of primary schooling, which we have already referred to; for the content and structure of upper secondary education; for the curriculum; for the very nature of each pupil's learning experience; for the assistance given each pupil in choosing his or her next destination; and for the way pupil performance is assessed. We were informed of some promising developments; for example, that the duration of some secondary level general subjects has been reduced to three years and that it is proposed not to use the gymnasium as a mechanism for selecting for the next educational level but as a means to helping each pupil discover his or her abilities, aptitudes and potential career interests. It is in the light of such developments that we now turn to consider the key issues.

The curriculum

Since the war of independence in the early 19th century the curriculum had laid stress on the teaching of ancient Greek culture and literature. This was scarcely surprising for Greece had to shake off the effects of Ottoman rule and to mould its scattered villages and islands into a modern nation with a sense of a common heritage. But what was necessary to forge the nation became in modern times an anachronism. The curriculum was concentrated on memorising facts about the past and out of touch with the realities of modern existence; the sciences were seen as "practical" subjects, despite the conspicuous lack of practical work in laboratories. In short, the school was cut off from the living society.

Those who prepared the reforms were conscious of this disjunction and prepared to modernise the curriculum much in the way advocated by the OECD review of 1965 in connection with the Mediterranean Regional Project:

> "It is useless to enrol vast numbers of young people in schools unless the education they acquire is relevant to modern life. The curricula should be designed to create a wide cultural outlook which, though linked to traditional values, would ensure an understanding of modern life and create the intellectual flexibility required in an era of rapid social change."[9]

In the event, however, the curriculum still contains a classical bias and falls short of harmonizing educational with social and economic development aims in the way intended. For example, the first year of the gymnasium is classically oriented; there is no teaching of physics or chemistry*. In the next two years the classical emphasis is reduced to 64 per cent and 62 per cent respectively. Biology is absent from the second year. Anthropology and elements of hygiene are taught only in the second year.

The curriculum of the first two years of the general lyceum also has a strong classical bias. For example, in the first year, where there are no electives, 63 per cent is classical and 36 per cent is science and technology (physical education being excluded from the calculation). In the second year the core curriculum is 70 per cent classical. Even when the electives for the science branch are added the classical components remains at 58 per cent. There are no courses in economics or sociology. Ancient Greek, on the other hand, is allotted six hours a week in the first year and five hours in the second. Encouraging, however, is the introduction of three hours of technology, three hours for optional studies and obligatory physical education. The new element of technology in the curriculum will turn out to be particularly valuable provided that inspiring teachers are found to teach it and interesting learning aids and equipment are made available.

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* Though biology, botany and zoology are taught.

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We also heard from several sources other criticisms of the new curriculum and the way it is taught. The most common complaint is that it is overloaded: there are too many subjects and in each subject there is too much detail. Since students have much homework to do they are thus overworked, particularly as many of them also attend cramming schools. A second complaint is that pupils still learn mostly by rote through many hours of formal instruction: there is no time for discussion or room for independent thought. Another complaint is that there is very little practical work. None of this is, of course, surprising in view of the desperate desire of the great majority of pupils to succeed.

It is not for us to call in question either the high motivation of pupils and their capacity for hard work or the distaste of teachers for what they regard as permissive methods, foreign fashions and easy options. We do suggest, however, that, in addition to adopting continuous assessment in the gymnasium from 1980-81, consideration might be given to:

i) reducing the number of subject hours while also enriching the curriculum with some new elements, e.g. by including more practical instruction in the treatment of traditional subjects;

ii) scaling down the syllabus requirements for individuals and subjects;

iii) providing opportunities for more practical and individual work;

iv) modifying the teacher's ***ex cathedra*** role by encouraging more independent study and project work and thereby developing more relaxed teacher and pupil relations.

Greece is facing an explosion of secondary education common to many OECD Member countries. The problem is how to change from a system dealing with a minority of the age group mainly destined for university to a system dealing with the great majority of the age group, many of whom have not the ability to aspire to university. The curriculum has to be flexible and broad enough to cater for heterogenous needs so that while not neglecting the academically gifted it sends out the less gifted with an education that will lead to a job and a rich adult life.

The language reform

If we have argued that curricular renewal has not gone far enough we can only applaud the momentous decision to replace the ***katharevousa*** by the ***demotike*** as the medium of instruction throughout the entire education system. Some critics, including a few politicians and certain members of the Greek Academy and the university professoriate, have strongly protested against the change on the grounds that it represents the betrayal of a noble tradition and will lead to a decline in academic standards. We sympathise with their concern to preserve standards but feel that the advantages of the change far outweigh the disadvantages. Now pupils do not have to struggle to master the grammar, syntax and vocabulary of what for most of them is a second language.

At the same time, we stress the importance of not allowing the written form of the ***demotike*** to become so rigid as to distance it from the spoken language.[10] For this would have essentially the same alienating effect on children from families with poor linguistic ability as the former use of ***katharevousa***.

Textbooks

In Greece all textbooks – one for each subject and for each year – are prescribed and published by the Ministry of Education. Teachers are required to stick closely to the order and subject matter of the text, which is organised as an instruction manual. They find this all the more necessary in that examination questions are also directly related to the text. In private schools there is no freedom in choosing textbooks but the better ones do use other books as well.

The authorities were in no doubt that the reforms could not be successfully carried through without new textbooks to replace the existing ones, many of which were obsolescent. In any case, most of them were written in the *katharevousa* and had to be rewritten in the *demotike*. At great expense, therefore, hundreds of new textbooks had to be prepared and issued as rapidly as possible. This task occupies much of the time and resources of KEME. In the time available it was simply not possible to remove all traces of obsolescence or to draw fully upon the best of foreign experience and, indeed, one teacher alleged that an apparently new physics textbook was nothing more than a cursory revision of a textbook compiled many years ago.

We were informed that each textbook is prepared with meticulous care and in accordance with the best pedagogical principles. Detailed guidelines are issued to textbook authors so as to achieve the uniformity believed to be essential. A sample of teachers is asked to test the efficacy of draft texts. Some teachers whom we met, however, complained that this or that new textbook contained obsolete material or was overloaded with wearisome detail or was simply badly organised. Leaving that aside, it does seem to us that teachers should be encouraged to organise their own lesson plans and material, drawing only on textbooks when they find it pertinent to do so, always provided, of course, that they are properly trained for the task. This would entail departing from the one textbook-one subject tradition. It would also benefit from the availability of well-stocked libraries.

Selection from the gymnasium to the lyceum

As we have seen, the examinations for entering the old gymnasium have been abolished. Instead, there is now an examination for passing from the gymnasium to the lyceum. The old examinations took place at each school. The new examination, which is nationally administered, distributes students between general and technical/vocational lycea.

At the time of our visit several aspects of the entrance examination appeared to be controversial. However, new measures have since been introduced to respond to parents' concerns and should dispel discontent. As we understand it, the revised system operates as follows. Pupils are awarded grades in four subjects (depending on whether they apply for a general or a technical/vocational lyceum) plus the mean grade in the leaving certificate from the gymnasium. Those five are added and the mean is calculated: pupils who earn a mean of 10 and above in the leaving certificate and in each one of the four subjects are eligible to enter the lyceum. Moreover, the following candidates are eligible for admission:

i) those who acquire a grade of at least 7 in one of the four subjects and a mean of 11 in all four subjects and the leaving certificate;

ii) those who acquire a mean of 13 in all four subjects and the leaving certificate, irrespective of the grades obtained in each of the four subjects.

Each candidate is given the chance to change the mean grade of his leaving certificate so that if he or she fails to secure admission into the lyceum but wishes to try again the next year he or she can take a special examination to improve the grades for subjects and the mean grade for the leaving certificate.

Recognising that the impact of the new system will be carefully monitored we should like to emphasise two of its positive effects and to point to two possible problems. The first positive effect is that a pupil who is strong in one or two subjects but weak in others will no longer be penalised as under the old system. Second, pupils who fail the examination at their first attempt and must improve the mean of their leaving certificate will now be able to sit for a special examination. The first possible problem is that students will continue to undertake preparation in order to obtain good results at school and in the final examination and may feel it essential to resort to the private tutoring schools (*frontisteria*) as a form of insurance. Second, despite the fact that there is no numerus clausus (85 per cent succeed!) pupils may still be under the necessity of making subject choices at a premature stage. There remains, too, a distribution problem as between the general and technical/vocational lycea. Nevertheless, leaving these possible problems on one side, we can only approve of the authorities' determination to seek, and no doubt to continue seeking, a selection system that is fair to all pupils.

Sex stereotyping

Girls participate in both cycles of secondary education in more or less the same numbers as boys. An earlier inquiry by OECD showed that as long age as 1964 the total number of girls was not far short of that of boys[11]. Girls are restricted, however, in their choice of subjects. All of them, but not boys, must take home economics. Relatively few are enrolled in technical education (other than commercial)[12] and within the general lycea the majority are concentrated in the humanities area. This means that when they come to enter a university or a post-secondary institution they are restricted to a limited range of courses. To change this bias will call for a revolution in attitudes on the part of girls themselves, their parents and their teachers.

Private schools

A significant 8 per cent of the secondary level age group attends private schools, which are mostly located in the towns and cities and often managed for commercial gain. About these schools it is dangerous to generalise because they vary enormously in their efficiency and influence. All must by law follow the public school curriculum and indeed are subjected to state inspection so as to maintain minimum standards. Some maintain impeccably high academic standards and confer an undoubted advantage on their students in competing for university admission. Many admit all comers, including those who cannot keep up the pace in the public schools. A few are highly selective. A few accept mainly pupils whose families have long connections with the school.

Why do parents send their children to private schools? It is certainly not, as in many countries, to protect the interests of dissenting religions. Broadly, there are two explanations. The first is that some parents believe their children will be taught better under more favourable conditions than in the public schools, for example, a lower teacher/pupil ratio, more books, more space and better equipment. The second reason is that some parents, seeing that their children perform badly in the public schools, hope that private schools will lift their achievement to an acceptable level.

There is, on the face of it, one very curious fact about the influence of the private schools:

> "Surprisingly enough, pupils from the public school aspire to continue at a proportion of 84.8 per cent (of all those at public schools) as against an 80 per cent proportion of pupils from private schools."[13]

But it may be that there is no cause for surprise for two reasons. First, a considerable percentage of those in private schools are there because they have done badly in the public schools. Secondly, it appears that the proportion of academically limited pupils in private schools are realistic about their inability to cope with university level work. It may also be that a good number of the academically limited pupils in private schools are able to enter directly into family businesses.

We were told on several occasions that the number of private schools was diminishing and, indeed, the Background Report indicates that their enrolments are falling.[14] If this is the trend, it is to be hoped that the inferior schools are those that are disappearing. There is obviously a place in a democratic society for good private schools, although the State should become concerned when their pupils secure a disproportionate number of places in the universities and when they flourish on private fees while the State has to stretch its own resources to try to ensure equal inputs to all its schools, rural as well as urban.

Cramming schools

No commentary on private schools in Greece would be complete without some reference to the ubiquitous *frontisteria* (literal meaning = taking care of). These are in fact cramming schools which set out to prepare pupils for the national examination at the end of the lyceum.

Before the reform the *frontisteria* played an indispensable role in preparing pupils for passing the university entrance examination. One of the main intentions of the reform was to eliminate them or, at least, to reduce their importance by making their tuition irrelevant. However, so great is the competition to pass from the lyceum into university, a subject which we discuss below, that pupils are continuing to make efforts throughout the second and third grades of the lyceum to master the full range of subjects in depth – cognitive depth, that is. Parents no longer deem it sufficient for their children to learn only in school. They also think it necessary for them to obtain private tuition in the evenings or at week-ends. This is not just a question of a few seeking additional help – the brilliant because they are not sufficiently stretched in school; the slow because they are stretched too hard – but the great majority of the school population. Private tuition plus school has become the competitive norm. The *frontisteria* have come to be a *de facto* parallel school system.

Many educationists and administrators bemoan the pernicious influence of the *frontisteria*, in our view, rightly so. Young people really cannot learn effectively for nine hours or so a day. They absorb endless facts without real understanding. Their personal development is stunted. They have no time for "out-of-school" activities. Moreover, there is the irony that some of the *frontisteria* teachers are regular lyceum teachers "illegally" wearing another hat, who cannot give of their best in school when trying to do what amounts to two jobs. And how much better it would be if all the skilled teachers in the *frontisteria* were to teach in the public school system and if all the money now spent by parents on fees, often at great family sacrifice, were to be spent instead on raising the quality of that system.

We believe that the authorities should adopt an active policy for eliminating the need for the *frontisteria*. This might involve in the first instance conducting a critical survey of their aims and practices and their effects upon the all-round learning needs of secondary age pupils. From such a survey it might emerge that the solution to their disappearance lies in reform of the curriculum, and teaching methods as well as, in due course, a reappraisal of the examination system.

School buildings

The transition from six to nine years of compulsory schooling and the setting up of technical/vocational lycea have imposed a further strain upon already overcrowded schools. The shortage of space is particularly acute in the major conurbations of Athens, Thessalonika and Patras which all have to cope with a great influx of population from rural areas. It is usually an essential practice to organise school attendance in two shifts. Thus, one half of the classes will attend for three days of the week in the mornings and two days in the afternoons while the other half do exactly the opposite. This alternation is disconcerting for the pupils and teachers and poses problems for many parents, especially for working mothers. Some parents seek an escape from the problem by sending their children to private schools.

To improve space standards is far from easy for it is a question not only of mounting and sustaining an intensive school building programme in urban areas but of acquiring the very land on which to build. In Athens, for example, twice as many school buildings would be required in order to obviate the need for the two-shift system and to put an end to overcrowded schools.

Schools vary considerably in size and in the quantity and quality of the facilities that they provide. Rural schools are said to suffer from a greater lack of learning materials than urban schools. On the other hand, rural schools have not only more space but better teacher/pupil ratios than urban schools. The national average rate of 1/30 does not sound alarming but hides a glaring discrepancy since the ratio varies in practice from about 1/7 to 1/50. It must be emphasized, however, that whatever the variations in space and equipment provision and in teacher/pupil ratios attendance and dropout rates scarcely vary from one community to another. Greek children of all ages go to school no matter what the discomforts.

A major problem concerns the siting of gymnasia and lycea outside the major population areas. It is considered, in conformity with the common belief in OECD countries, that a secondary school needs to have a population of at least 200 so that an adequate number of suitably qualified subject specialists can be employed. This means that in remote areas it is necessary to provide boarding facilities for pupils in strategically located centres. We believe that this is the only reasonable policy and that it must be vigorously prosecuted especially in view of the below-average performance in the recent national examinations of gymnasium pupils living in isolated villages in the mountains or in small islands, which may well be due to too much reliance on too few teachers in small schools.

Impact of ROSLA on the lycea and post-secondary education*

We wish to draw attention to the quantitative implications of ROSLA for the lycea and for post-secondary education. The claim of the Background Report (p. 161) that "one should not expect the ROSLA to have a very significant impact on the demand for places in the lycea and universities" seems to us sanguine. The experience of all OECD Member countries, not to speak of Greece's own experience, shows convincingly that whenever the length of compulsory schooling is extended there is an immediate increase in demand for the higher levels of education**.

2. An evaluating mechanism for the reform

So far public opinion appears to have been receptive to the reform of secondary education and particularly to the extension of compulsory schooling by three years. It may be, however, that in time parents, especially small farmers, will resent keeping their teenage children in school if they appear to be failing in their studies. Unfavourable reactions may also begin to be manifested against other aspects of the reform. For this reason we suggest that measures should be taken to monitor closely both its specific and overall effects.

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* Raising of the School Leaving Age.

** We see no need to comment further in view of the extensive data on this topic furnished in the Background Report.

The Greek education system has not so far been accustomed to formal evaluations of its performance. The task of the inspectorate is to assess the performance of individual teachers rather than the performance of schools or sectors of the system or the quality of the inputs. In Chapter 3.2 of the Background Report, "Implementation and Evaluation of the General Education Reform" there is a reference to an opinion survey administered in 1977 which covered only those aspects of the reform that had received a favourable welcome.

In our view, the first need is for sound data on the basis of which the impact of the reform may be systematically monitored — for example, in the take-up of secondary education and the recruitment policies of employers. We discuss the whole question of policy analysis and research in Chapter VI.

3. Other issues

In succeeding chapters we take up three issues which we might equally well have taken up in the present chapter and which, incidentally, illustrate the need for an evaluation strategy. We treat them separately for the sake of clarity. They are: the role of the technical/vocational lyceum in the general context of the education and working life relationship; the training and retraining of teachers; admission to post-secondary education.

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IV

EDUCATION AND WORKING LIFE

A combination of factors leads Greece at the present time to be disturbed about the quality of its manpower. It is conscious that labour productivity is low, that many workers are underemployed, that regional development is hampered by a lack of skilled workers, and that the outflow of labour through emigration has slowed to a trickle. At the same time, it must prepare to face stern competition within the EEC and to ensure that the qualifications of its workers match those of the workers in the other nine countries.

A major purpose of the reform of 1977 is thus to close the gap between education and the labour market. The strategy proposed is threefold: first, to try to match the output of the various levels and branches of the education system to the anticipated needs of the market; second, to prepare as many young people as possible for direct transition from school to a job; third, to discourage the rush for university admission by according vocational and technical education a higher status in the public esteem. In order to implement this strategy, the reform has incorporated some vocational education in the curriculum of the gymnasium and set up two-year vocational schools and the technical/vocational lycea.

The need for more and better vocational and technical education has long been recognised in Greece. The problem has been how to create the right structures and curriculum while enhancing its low status. The popular attitude towards technical and vocational education has been traditionally circumspect. It was thought to have poor instructors teaching inferior subjects in poor buildings. Entrants into technical or vocational education were often dropouts from general education, or general education graduates who could neither gain admission to university nor get a job. The dropout rate has been high. Parents have exerted powerful pressure on their children to stay in the academic stream at all cost and to strive for post-secondary education:

> "It seems that manifested demand for post-secondary education, and particularly university education, is the result of the influence of parents' aspirations more than those of the pupils themselves. Such aspirations, however, are built on long-standing values pertaining to education and work, which, in many respects, do not reflect any longer the actual situation. The build-up of parental and environmental social pressure on each pupil is so great that a pupil needs considerable courage to renounce university study and accept either a non-university field of study or go directly to work."[13]

Parents, indeed, have believed that possession of a university degree is the royal road to a lucrative career and perhaps more importantly social status. But if the initial pressure to achieve academic success has come from parents there is little doubt, according to the same report, that

> "Pupils' aspirations pertaining to education and work are developed at an early age under the influence of the broader family environment. They are, therefore, so well rooted in the mind of the individual that they continuously affect his

> behaviour throughout his life despite the presence of such negative factors as achievement in school and other environmental constraints."[16]

The all too familiar problem, then, facing the public authorities is how to raise the status of vocational and technical education so that parents and their children do not see it as an unfortunate and usually belated alternative to pursuing academic studies. By means of exhortation the authorities and some employers have striven in vain for years to wean away the public from its obsession with traditional academic schooling. By means of an apparently fundamental structural change they now hope to enhance the reputation of technical and vocational education in the public image.

1. Structure of vocational/technical education before 1977

Until the late fifties work-oriented education and training were left overwhelmingly to private endeavour*. Thereafter, however, the Greek authorities, in common with the authorities in many other countries, perceived the economic value of human capital and the consequent importance of technical and vocational education. Thus, the preamble to the law of 1959 prescribing the first wave of educational reforms contained the statement that "... the national education system must be oriented more systematically than ever towards the technical and economic sector". The law provided for the creation of: (*i*) technical and agricultural schools to receive students who had completed primary school for one- to four-year courses (lower secondary vocational schools); (*ii*) technical schools for those who had completed the first cycle of the gymnasium or a course at a vocational school; (*iii*) two technical colleges for training engineers, in Athens and Salonika respectively, for those who had completed the secondary cycle. In this way the framework of a three-tier structure was constructed. At the same time, administrative responsibility for those institutions was vested in the Ministry of Education and a college was founded for the training of technical and vocational teachers (SELETE). In 1964, as part of a proposed second wave of educational reform, a new law for educational/vocational education, completing the proposals for a major revision of the structure of secondary education, was drafted, which would have established technical/vocational education in parallel and enjoying equal parity with secondary general education. Though not enacted, this reform was well received and helped to facilitate preparation of the 1977 reform.

2. The new reform

The new reform was introduced in 1977 under Law 576 on Vocational Education which largely derived from the recommendations of a working party set up in 1975. This prescribed an entirely new curriculum which, in turn, called for an entirely new set of textbooks. Within three to five years it was proposed that all technical and vocational schools should be housed in their own premises. It was estimated that the new technical/vocational lyceum would provide the labour market each year with 18 000 entrants or 13 per cent of the age cohort. These estimates were predicated, of course, on student satisfaction with the new lycea, an expanding economy and the existence of a pent-up demand in the labour market for skilled workers and technicians on a large scale and in occupational categories directly linked to the courses offered in the lycea.

Present structure of secondary vocational/technical education

The situation after the reform of 1977 is that vocational/technical education is provided by a variety of agencies in a variety of forms, viz.:

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* Accounting for 85 per cent in 1961.

i) *Under the Ministry of Education*

   a) in two-year technical or vocational schools which now follow after the first cycle (the gymnasium) and train craftsmen; these are open to those who have successfully completed the gymnasium;

   b) in three-year technical or vocational lycea leading both to post-secondary entrance and to foreman qualifications; these are open to those who have completed the gymnasium and passed an entrance examination. Graduates of technical and vocational schools may also enrol in the second year of the lyceum, provided they pass a special entrance examination.

ii) *Under the Ministry of Labour*

through an apprenticeship system of work combined with study – in industry seven hours a day and in vocational schools three hours a day. The system at present provides training for about 10 000 young people (or approximately 5 per cent of young people aged 15-18) for some 40 occupations, mainly technical-craft trades.

iii) *Under the responsibility of other ministries* vocational training in special sectors, e.g.

   a) tourism, hotel staff, cooks, waiters (National Tourism Organisation);

   b) merchant marine personnel (Ministry for Merchant Marine).

iv) *In private commerce and industry.*

Two-year vocational schools

The old vocational schools for boys automatically disappeared with the advent of nine years of compulsory schooling. The object of the new two-year vocational schools (grades 10-11 or age 16-17) is to provide a broad basic grounding in an occupational area supplemented by general studies. On leaving the schools students can either take up a skilled job at once or obtain admission to the second year of the technical/vocational lyceum.

Technical/vocational lycea

The establishment of the technical/vocational lycea is, arguably, the most important innovation among the recent educational reforms. The authorities have two objectives in view:

- to bring about parity of status between general and vocational education by establishing a parallel chain of vocational institutions at all post-compulsory levels;
- to attract young people into priority occupational areas by raising the quality and enhancing the status of vocational education.

And the technical/vocational lyceum is intended to be the key to achieving these aims. Thus, it offers a strong general education component but no on-the-job training. Whether it succeeds or not will depend on its ability to establish a credible identity and thereby to attract good students.

So far, however, the technical/vocational lycea are clearly struggling to establish their credibility. Their intake is only a small fraction of the intake into the general lycea. Enrolments have increased but this increase mainly consists of young people who could not get into a general lyceum. Several reasons may be adduced for this slow progress.

i) Technical and economic subjects admittedly account for a larger proportion of the timetable than hitherto, but they are not counted directly in selection for university entrance as are traditional subjects (languages, natural sciences). In order to reach the highest educational goal – the university – students must master additional topics among the subjects already taught and similar to the optional courses in the general lyceum. This entails spending 40 hours a week in the classroom. In any case they are not eligible for entry into the following university courses: law, literature and theology.

ii) The technical/vocational lyceum has to try to pursue two goals simultaneously, namely to enable those students who so choose to qualify for admission to a post-secondary institution and to enable all students to acquire an occupational qualification. This pursuit of two important educational goals, although desirable in itself, has to be completed in three years whereas the general lyceum is pursuing the solitary goal of university entrance. Even when the number of class hours mounts up to an excessive 40 hours per week, students may still require more time in order to attain both goals.

iii) In order to achieve the two educational goals high cost capital facilities are required (laboratories, equipment, and teaching workshops), especially for satisfactory qualifications in technical skills, and hundreds of new textbooks. In view of the speed with which the reform has been introduced, it is understandable that suitable buildings and essential equipment are still wanting. We heard a complaint that as regards buildings priority had been given to erecting new gymnasia.

iv) Primary and gymnasium teachers still lack suitable training in technical and economic subjects, knowledge of occupational and labour market structures, and vocational guidance skills. The result is that the majority of their pupils learn little or nothing about vocational and technical educational opportunities, and are not therefore motivated to take them up. No doubt, the recent appointment of specialists to teach technology subjects will have a beneficial effect.

It will not be easy for the Ministry of Education to escape from the central dilemma that in order to gain academic credibility for the technical/vocational lycea in the eyes of parents and students it must appear to maintain a strong general studies component, and yet those students who want to go straight into jobs require intensive training in specific occupational skills. The Ministry is bound to hold that the technical/vocational lyceum is in theory and practice the equivalent of the general lyceum whereas its critics argue that it is, *de facto,* a school whose main purpose is to block pupils from entering universities. The majority of gymnasium pupils and their parents still need persuading, however, that it is not designed to deflect them from the university track into an inferior track.

For our part, we should like simply to stress two points. First, students in the technical/vocational lycea should not be trained as narrow specialists, for the more they feel divorced from "academic" studies, the greater will be their sense of difference from the products of the general lycea and the less their chances of proceeding to university. We would suggest that their workshop training should be reduced and focused on demonstrations rather than the acquisition of specific skills. At the same time, the two-year vocational schools should perhaps concentrate still more on skill training. Second, the success of the technical vocational sector depends on whether a majority of the students in each institution feel satisfied with the standards attained and whether they can obtain interesting jobs at the end of their courses or proceed to post-secondary studies either in the universities or in a higher technical institution. The fact that the teacher/pupil ratio is 1/22 as against 1/32 in the secondary general lyceum argues in favour of the achievement of satisfactory standards.

Apprenticeship training

Although apprenticeship training is very largely the province of the Ministry of Labour we consider that it is entirely appropriate to consider it in our appraisal of the Greek education system for two reasons. First, it is an essential part of the overall societal endeavour to prepare young people for working life. Second, we believe that it might be regarded with advantage as structurally a part of post-compulsory education and one of the alternative tracks. There is, after all, a large demand for the 11 000 or so places available.

Present apprenticeship training takes place both in industry and in school, with industry largely predominating. The industrial part clearly contains stronger occupational than educational components. With seven hours of daily training in industry and three hours of education in school the norms generally recognised as reasonable for young people in industrialised countries are exceeded.

Yet qualitative improvements have been made in recent years. The school syllabus follows guidelines drawn up jointly by the Minister of Labour with the Minister of Education (through KEME). For in-plant training, recommendations are made by the Minister of Labour.

The apprenticeship system in any country must necessarily reflect national traditions and the prevailing constraints. However, having compared the Greek system with other systems usually judged to be successful, we would offer the following suggestions for consideration by the authorities:

i) Reducing the industrial component to four hours a day or 24 hours per week. This measure alone would enable the number of apprenticeship places to be almost doubled in purely numerical terms.

ii) Increasing the school component to 3½ hours a day or 16 to 18 hours a week and further developing linguistic skills.

iii) Varying the combination of school and industrial components. On the whole, instruction in school in the morning and training in industry in the afternoon is to be preferred to the opposite practice. However combinations can also be adopted in which school instruction and in-plant training take place on separate days or even in blocks of weeks or months*.

iv) Drawing up uniform location and investment programmes for the governmental vocational schools, so that at least the teaching workshops may be used in common. At present there appear to be some examples of one responsible authority having premises and workshops but no students, while another has students but no workshops.

v) Providing longer and more systematic training for teachers.

On-the-job training

Training in companies is subsidised by the State. It is limited by the fact that employees have to work long hours. Yet we were told that employers wished to provide more in-company training and to increase the number of apprenticeships.

The trouble is that whereas the big companies which can afford training facilities employ a total of 400 000 people, small firms, which cannot afford training facilities, employ twice as many, namely, 800 000. Much of the necessary training must be provided, therefore, by public agencies.

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* We are glad to hear that three schools have operated in this way on an experimental basis during the school year 1980-81.

There appear to be very few facilities for refresher, retraining and recycling courses. Yet the demand for such courses is bound to become urgent. This leads us to wonder whether it would not be timely to undertake a national inquiry into the need for training and retraining at all levels and for all sectors of the labour market. It certainly points to the imperative need for effective co-ordination of the national training effort. School workshops might be used for this purpose in the afternoons and evenings. It is encouraging that the authorities have announced plans for accelerated training centres outside school hours as from 1982.

Co-ordination: Problems and needs

Greece suffers with many OECD countries from the fragmentation of responsibility for technical/vocational education which customarily leads to wasteful competition and yet leaves important training gaps unfilled. There is a serious shortage both of middle-level personnel in industry and commerce and of skilled manual workers in many sectors, especially in certain rural areas where development is being held back. There are also marked regional variations in the availability of jobs and of training for jobs.

In accordance with Law 576 of 1977 all technical and vocational education is co-ordinated by the Ministry of Education but it appears that there is much resistance to this provision, not least from other ministries. A possible solution is further to activate the national co-ordination council provided for in Article 73 of the Law and support it by local co-ordination councils (all councils including employer and trade union representatives) in order to assess needs, advise on the best use of resources and plan future developments. For example, could not the goals and subject matter of common subjects in vocational schools controlled by the Ministries of Education and Labour, respectively, be co-ordinated and the results jointly monitored? Whatever the co-ordinating machinery adopted the Ministry of Education is surely right within its own direct sphere of responsibility to plan for an equitable yet rational distribution of technical/vocational education facilities in the light of regional requirements.

Training of teachers for vocational and technical education

The quality of the teachers governs the ability of the technical/vocational lyceum to offer the students a realistic prospect of competing for university admission on even terms with students from secondary general education. For not all teachers are highly qualified. Thus, workshop teachers have only secondary technical education diplomas supplemented by one year of training in SELETE. The need for intensive training courses is therefore self-evident, not least for the benefit of the great number of part-time teachers*, especially those responsible for the on-the-job training of young people.

At present, there is in Athens one college for training teachers in the technical/vocational sector (SELETE). This institution was established in 1959 and appears to be well-organised. It gives teacher trainees a good grounding in theoretical and practical work as well as in pedagogics, not the least thanks to its control of three experimental vocational schools and lycea. Perhaps SELETE should serve as a prototype for other technical/vocational training colleges to be founded in other regions of Greece in addition to Thessalonika where a branch was established in 1979.

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* The Ministry of Labour has long provided short-term training courses for craft teachers in the schools under its particular control.

Two special problems have also to be dealt with. The first concerns qualifications, status and salaries. A coherent policy seems to be needed on the whole question of equivalence within the teaching profession. The second has to do with the necessity of ensuring that highly qualified teachers are available in the technical/vocational lyceum to offer competent teaching in the subjects required of all upper secondary teachers to be based on a common model.

Importance of guidance and counselling

The root cause of the public obsession with academic achievement is that pupils and parents are persuaded that there is a direct correlation between levels of educational achievement and monetary and social returns in working life. In addition, Greek parents display to a striking extent the human tendency to see all their children as swans. In the long run, sheer market forces will probably induce greater realism. In the meantime, however, fierce competition for university entrance will continue to bring much needless heartache and ultimate disenchantment to many parents and their children. The obvious but not easily applied solution is to adopt measures to alter the rewards system in the labour market and to ensure that parents and students are fully informed about career prospects and that students from an early stage in secondary education and certainly from the beginning of the second cycle become aware of their academic capability, general aptitudes and preferential interests. This entails appointing specialists in and good teachers of practical arts and design both in the primary schools and the gymnasia. We were informed of a recent inquiry undertaken by the Ministry of Education which indicated that where good advice was available pupils showed a greater enthusiasm for choosing post-compulsory courses in technical/vocational education.

Career orientation is required in the last year if not the last two years of primary schooling as well as in the gymnasium. In the long run, if the task is to be done well this calls for a guidance and counselling specialist in each gymnasium and for advice to be easily obtainable in each primary school. We believe that a further expansion of the short intensive courses for subject specialists who normally devote part of their time to guidance and counselling, might offer a stop-gap solution. The appointment of specialists will not suffice, however, unless all teachers have some understanding of what is going on in the world of work and an interest in helping their pupils to make wise choices about their future educational development and occupational careers.

3. The reform and the economy

It was estimated that ROSLA would bring about an initial reduction of 114 000 and a permanent annual reduction of about 60 000 in the workforce. This might lead to selective wage increases affecting the direct cost of agricultural products and thereby reducing the comparative advantage which Greece anticipates on joining the Common Market. The authorities believe, however, that any short-term losses will be comfortably offset by the greater productivity of a more educated workforce; at present, only 50 per cent of the needed manpower is available. We share this belief provided that the technical and vocational sector can quickly prove its worth by turning out highly skilled manpower which can help develop the new technology and the capital-intensive sector of the economy. Another important proviso is that the new generation of gymnasium graduates should not spurn agriculture so that the gain in industrial and commercial productivity is weakened by a decline in agricultural productivity. Still relevant today is the judgement of the experts who declared in 1965:

"The extension of the period of compulsory education to nine years is vitally important for the agricultural sector. The further needs of the rural population can best be met by mass participation of youth in social and educational spare-time activities within their village and by the provision of a large number of short courses in specific agricultural techniques."[17]

Continuing education and training

Although asked to confine our attention to formal education we feel obliged to make two observations on education and training provision beyond school and universities. First, the credibility of the technical and vocational sector would be greatly enhanced and the efficiency of the workforce maintained at a high level if backed up by a comprehensive system of continuing or recurrent education and training designed either to help adults to complete their formal education or to improve or update their occupational qualifications or to acquire new ones. Second, some of the objectives of the reforms clearly call for an expanded adult education service. By way of illustration we shall mention two of them. The first concerns the need to increase the capability of adults to play a significant part in strengthening the democratic process of government. The second concerns the role of parents in the education of their children. For example, we would suggest that intensive literacy instruction might be offered to parents found to be illiterate.

4. Conclusion

We think that the authorities are right to want to expand the technical and vocational sector of the education system, though we have some reservations about the phasing and certain features of the reform, notably the decision to create two different types of upper secondary school. For instance it is obvious that still greater capital investment is required if the vocational schools and technical/vocational lycea are to be able to provide adequate workshops, laboratories and equipment. It is equally obvious that recurrent expenditure will have to be increased if all teachers are to be brought up to a high level of competence. But the main difficulties lie outside the technical/vocational sector as such. They concern, first, the need for further improvement within the education system as a whole: an effective guidance and counselling service in the primary school and the gymnasium; good teaching of vocational subjects in the gymnasium; improving opportunities for students in the technical/vocational sector to secure university entrance. Second, they concern factors extraneous to the education system. Thus, there is the psychological problem of changing the public attitude towards "non-academic" education and apprenticeship training in factories and schools. And there is the need to change the recruitment policies of employers, including the public services, and the present structure of salaries.

V

POST-SECONDARY EDUCATION

It was not explicitly part of our brief to examine the post-secondary sector as such but some of the fundamental problems of the schools can only be solved by bringing about changes in that sector. None of these changes militates against the best interests of post-secondary education. There are three specific matters that affect profoundly the activities of the schools on which we feel bound to comment: (*a*) the whole problem of selection; (*b*) the expansion of the non-university sector; (*c*) the recruitment, training and service conditions of teachers.

1. The admission problem

Let us first stress that post-secondary education in Greece is *free* as to tuition fees and the cost of books. Anyone who can meet the examination requirements, which as we shall see are very competitive, is eligible. Social origin or the level of parental education is not a formal bar to entry although it is evident that all those who are too poor either to take advantage of the tuition provided by the *frontisteria* or to pay for room and board once accepted are disadvantaged. It is also evident that educated parents do provide significant stimulus and savoir-faire to their children as a recent study points out: "Among all factors used to explain further study plans there was a single one that dominated all others: the average level of grade in secondary school". The authors went on to inquire: "What is likely to determine these grades?" and discovered, not perhaps surprisingly, that "parents' education is a very important factor in this respect".[18] That is to say, well-educated parents are more effective than other parents in helping their children to attain higher grades.

On completing the second cycle of secondary education young people who wish to pursue further study and have the essential means may aim for admission to a university or a non-university institution. The aim of the great majority is to enter one of the universities. The non-university institutions comprise:

1. Centres for Technical and Vocational Education (KATEEs) or independent Higher Institutes for Technical and Vocational Education: two to three years for vocational subjects, depending on the specialisation, and three years for technical subjects.
2. Teacher (primary) training institutions: two years.
3. Teacher (pre-primary) training institutions: two years.
4. A School of Home Economics, leading to a career as a secondary level teacher of handicrafts or a dietician: three years.
5. Two Schools of Physical Training: four years.
6. A College for the Training of Technical and Vocational Education Teachers (SELETE): 4 years.

We use the phrase "aim for" advisedly because the competition to enter a post-secondary institution, especially a university, is fierce. In 1960, the total enrolment was 26 000. In 1980, of the age cohort of around 190 000, approximately 90 000 students annually complete the full 12-year cycle and over 70 000 of them want to enter university. When to this number are added unsuccessful candidates from previous years this means that some 90 000 to 100 000 students are sitting examinations for 22 000 places (15 000 in universities and 7 000 in other institutions).

There are proposals to increase the intake of both university and non-university institutions during the present five-year plan but it is certain that three to four candidates will continue to strive for each available place. There are not only the consequences of ROSLA to be reckoned with, as we have indicated above, but the likelihood that Greek students will find it increasingly difficult to study abroad, in Italy for instance (see page 36).

The authorities have, in fact, been carefully controlling the intake into the universities for many years by applying a *numerus clausus*. They are swayed by the absorptive capacity and anticipated manpower needs of the labour market, a desire to hold down expenditure on the most expensive sector of the system and a realisation that a bigger intake would lead to bringing down standards which are already feared to be low, given a staff student ratio of 1/15, and a shortage of laboratory space and equipment and of library facilities. It is only too plain, however, that parents and their children are more optimistic about the number of future occupational openings for graduates than the authorities and still persuaded, without having to be economists, that the long-term rates of return justify the costly short-term investment. As long as parents' and young people's optimism remains unquenched, it is unlikely that pressure on university admission will be relaxed, unless, as we shall propose, the non-university institutions can be expanded and offer an attractive alternative.

A complex selection process

The selection system for entrance to post-secondary institutions initially aroused considerable unease among would-be students and their parents. It is designed to ameliorate the unfairness of the previous system and to diminish the importance of the frontisteria. However, according to opposition critics it has created tension for most students throughout the whole of their secondary education, though more severely during the second cycle, because they must now sit two national examinations, try to accumulate high grades, and each year, together with their parents, agonise over the mixture of subjects most likely to lead to personal success. We suggest that any future amendment of the selection system should be subjected to a searching inquiry in the light of four criteria: social equity; flexibility; simplicity; economy*.

2. Expansion of the non-university sector

Traditionally, the non-university sector of post-secondary education has been much smaller than the university sector and has enjoyed much lower prestige. The failure of the authorities in the past to expand this sector was surprising in view of the fact that its potential value for the economy in training middle and higher level scientific and technical personnel was fully recognised[19]. Now the logic of the reform of secondary education requires that it must expand for it would be irrational to promote the development of technical and vocational education at the secondary level without promoting a corresponding development at the post-secondary level. In any case, it is only by expanding the non-university sector that the pressure of demand on the universities can be syphoned off.

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* Since March 1980, KEME (Centre for Educational Research and In-service Training of Teachers) has begun an evaluation of the selection system with the focus on equality of opportunity, contents and methods.

Of course, the issue of prestige and of parental and student attitudes has to be dealt with. It is not without significance that non-university post-secondary education is commonly designated as "higher" and the universities as "highest". But there are a few encouraging signs. Applicants for non-university post-secondary education – excluding teacher training – have considerably exceeded the supply of places for almost a decade, which seems to suggest that, even allowing for the fact that a majority of the applicants are frustrated would-be university entrants, its prestige cannot be all that low. Second, a time must come when a critical mass of parents and their children recognise that it is more prudent to move into a career through the non-university sector than to struggle in vain to gain a university place which may not in the event lead to a good job.

The KATEEs (Centres for Technical and Vocational Education)

The key to the development of a strong non-university sector will be to expand and enhance the all-round quality of the KATEEs. These institutions, which now number ten, were founded in 1970 during the period of military dictatorship with some financial assistance from the World Bank. They brought together within one institution training courses previously scattered over several institutions.

The organisation and curriculum of the KATEEs may be illustrated by reference to an institution which we visited in Heraklion. This divided into four schools, subdivided in ten sections, viz:

Engineering	Mechanical Engineering, Electrical Engineering, Civil Engineering, Electronics, Graphic Arts, Food Industry Technology
Business	Accounting, Secretarial, Management, Marketing, Tourism, Librarianship.
Health and social welfare	Nursing, Social Work, Physiotherapy, Midwives, Opticians, Medical laboratories
Agriculture	Horticulture and Crop Production (Training Farm), Cattle Production Agromecanics, Forestry.

The curriculum in all these schools covers both theory and practice. For practical work installations are used off as well as on the main campus. Students must undertake practical work in companies during the summer vacation and in accordance with regulations or prescriptions laid down by the KATEE. Labour market authorities help to place students, who must complete four months of in-company work on a two-year course, and six months on a three-year course. Employers are only too glad, it appears, to take on students for work experience (not only, we assume, because their costs are minimal).

The students at Heraklion are recruited from all over Greece, though the majority happen to be Cretans, and are selected on the basis of their marks in the pan-Hellenic examinations. Nearly all come from general lycea, though as from 1980 32 per cent must be admitted from technical lycea in pursuance of the policy of increasing the attraction of those institutions. A law is currently being enacted to specify an annual quota of students for the KATEEs. The academic standard of the entrants is said to be rising sharply and the students themselves wish to see an upgrading of KATEE standards. It is hoped that this rising standard will lead to the gap between the non-university and the university sectors eventually disappearing. Graduates have no difficulty in securing jobs. Indeed, in some occupational sectors there is an acute labour shortage. Jobs for engineers are the most problematic.

We identified four problems facing the KATEEs that need to be resolved:

- *i*) How to establish a convincing status in the public eye.
- *ii*) A shortage of full-time staff and too much reliance on part-time staff.
- *iii*) Shortages of laboratory and other equipment.
- *iv*) The imposition of external regulations and prescriptions about what constitutes suitable qualifications for entry into many occupations, for example tourism, or for promotion within the public services.

The question of status is the most critical. Parents and their children continue to regard the KATEEs as a second-best to the universities and as offering comparatively fewer career prospects. It should be made widely known that KATEE graduates can enrol in the second year of university and that it is possible for them to compete for public posts and enjoy the same prospects of promotion as university graduates.

3. Students abroad

Some students decide while still at the lyceum that they cannot possibly pass all the necessary examinations and opt for post-secondary studies abroad without more ado. Then a large number of those who try for university entrance and fail also do the same thing. Thus, apart from a small but significant number of academically gifted people who attend prestigious universities abroad, especially at the post-graduate level, there are many thousands of young Greeks studying for first degrees in other countries[*]. Many eventually settle abroad for good; others return to Greece in search of employment. But all take funds out of the country which now aggregate $ 100 million per annum. Not only does this affect the country's external balance of payments but it also takes away money which might be used instead to improve the quality of post-secondary education. This is not to suggest that there should be private universities in Greece but that students might contribute towards tuition costs according to their family means. At any rate, a large percentage of the "external" students might prefer to stay in Greece if more places, geared to recognisable careers, were made available in the non-university sector.

4. Selection and training of teachers[**]

It is a truism that a school system is only as good as the teachers who serve it and that reforms only succeed if teachers are motivated to implement them. It is also true that in many OECD countries at the present time teachers are struggling to improve their standard of living, their social status and their conditions of service. In Greece teachers are as beleaguered as anywhere else despite the unusually high public esteem for education. They are poorly paid vis-à-vis other professions but better paid than civil servants; they frequently work under difficult conditions — overcrowded schools, large classes, inadequate teaching aids, lack of space for preparation of classes and for marking pupils' work and lack of administrative assistance; some ask for greater autonomy and scope for personal initiative; pre-primary and primary teachers who hanker after a post-graduate degree must study abroad. It is not surprising that (*a*) women are in the majority at the secondary as well as the primary level, though it is to be noted that all teachers in one-teacher schools are men, and that (*b*) teaching as a career is not highly regarded by secondary school leavers, who turn to it grudgingly as a last resort. Furthermore, we were told that a substantial number of undergraduates choose to become secondary teachers not out of any sense of vocation but because they see no prospects of any alternative career. All this is scarcely conducive to creating a dedicated profession.

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[*] It is to be noted that some countries, notably Italy, are now restricting the intake of foreign students, including Greeks.

[**] In Greece the term "teacher" applies only to teachers in pre-primary and primary schools. Secondary level "teachers", who are viewed as subject specialists, are termed "professors". We shall use the term "teacher" and hope that the context will make clear whether we are referring to primary or secondary school "staff".

The country's 32 000 or so primary school teachers receive no more than two years of initial training. They are trained in one of the 14 teacher training colleges, 12 of which are fully supported by the State and two of which are semi-private; 11 are mixed and three are for women only. Entrants to the colleges must now have completed 12 years of schooling either in a general lyceum or a technical/vocational lyceum. Half of the entrants are selected on the basis of their performance at school and the other half on their performance in the pan-Hellenic tertiary entrance examination. In 1977 the annual intake was sharply increased in anticipation of the reforms with the result that classes tend to be very large. The curriculum is oriented towards teaching subjects (a primary school teacher must be able to cope with all the subjects in the school syllabus) and can be dangerously light on teaching practice. It is also said to be arid, out of date, overloaded and to place too much reliance on standardized textbooks. The students undoubtedly require more time for discussion and private study. We wish to record, however, that in the training colleges we were able to visit we encountered some lecturers who had introduced lively and imaginative elements into their courses.

Pre-school (kindergarten) teachers are trained in one of four separate colleges which are for women only. The general structure of the course is the same but more time is allowed for practical work. There is a draft plan to provide pre-school and primary school training in a pedagogical university providing four-year courses.

Teachers in the gymnasia and lycea must be university graduates. The emphasis is placed upon their academic knowledge rather than upon their pedagogical skills. Many learn little, and some nothing, about educational theory and teaching techniques. We believe that secondary level teachers require much more specific professional training and some experience of the aims and methods of the primary schools.

A particular problem is that over half the gymnasium curriculum is taught by "philologists", whose range of language instruction may include Greek and Latin, modern Greek, grammar, and who may also teach history, civics and psychology. Teachers required to cover such a broad range are more or less obliged to concentrate upon mugging up and dispensing facts rather than imaginatively interpreting each subject.

We believe that a major policy commitment to raising the quality and status of all teachers is required and to considering the establishment of an all-graduate profession by extending the duration of the course first to three and then to four years as quickly as possible. We would counsel against simply adding more of the same and recommend that new courses should be developed. We would also recommend that the colleges should be under the control of lecturers with substantial teaching experience and not become centres of abstract studies in the pursuit of status. This would entail, of course, elevating the status of teacher training colleges to the university level. In the meantime, we suggest that measures might be taken to associate teacher training with the universities but only in the context of a revision of the universities' role in the general development of education. By this we mean that universities should revamp the courses that they now offer intending teachers so as to include elements of educational theory as well as teaching practice and to keep the training close to the life of the schools.

We also believe that a particularly urgent priority is to multiply the opportunities for initial teaching practice and for continuing professional development through the interaction of theory and practice. At present, few teachers have any opportunity to improve their professional skills and to up-date their knowledge of their special subjects, though we noted with interest that 200 in-service training courses had been planned for the year 1979-80, that a draft law on refresher courses was being prepared, that a teachers' manual would soon be issued, that ten new schools for in-service training were being established (SELDE and SELME for primary and secondary teachers respectively) and that special courses for heads and inspectors were being instituted.

Above all, we think that the role of teachers in the schools needs to be diversified and brought closer to the individual learning needs and future careers of each pupil. With regard to the passive part played by teachers in guidance and counselling a recent report passed the following judgement which, to us, remains valid:

> "In the absence of any sort of formal guidance the role of the teacher in helping pupils "make up their minds" is very limited. This is in accord with what seems to be a general view in Greece that the teacher remains very remote from his pupils. This behaviour may be attributed to several reasons, such as institutional bureaucratic attitudes, large size of classes, heavy workload, and so on. The fact remains, however, that in the absence of other procedure for guidance and orientation, the only persons who know the pupils and could therefore help them directly in their academic and professional orientation are not being involved."[20]

We would also point out the need to train specialist teachers for dealing with handicapped children and children experiencing reading and writing difficulties. We understand that a draft law soon to be introduced will include provision for the training of specialist teachers.

In general, teachers, heads (principals) and inspectors do appear to be conservative and resistant to change. We think that this is partly due to their initial training and how they have been conditioned. The remedy is to revitalise their training courses and to give education staff at all levels more incentives to pursue novel ideas and choose novel methods.

5. Teachers' status and salaries

We were frequently told that teachers are poorly paid and that this has necessarily adverse effects on the quality of the educational provision at all levels. Well qualified and properly motivated people, it is claimed, feel that they cannot afford to enter the profession and too many practising teachers disperse the energy that they should be concentrating on the classroom over a secondary occupation – subject specialists often teaching in a *frontisteria* school – in order to earn a tolerable income. We can only suggest that whether such allegations are valid or not could be ascertained by instituting a national inquiry into the recruitment, remuneration, out-of-school activities and overall efficiency of teachers. Such questions might be posed as: What is the image of school teaching among secondary school pupils? What is the present level of teachers' qualifications vis-à-vis other professions? How many teachers have secondary occupations and what are these occupations? How many teachers are employed by the *frontisteria* and for how much of their time? How do teachers' salaries compare with the salaries in other professions? Finally, how do teachers' salaries compare with those paid to teachers employed by the *frontisteria*?

It does not follow, of course, that if the findings of such an inquiry were to expose serious inadequacies in the quality and performance of teachers, the solution would lie in raising salaries, though this might well prove to be essential. For one thing, the level of teachers' salaries must always be a function of public revenue and priorities. For another, improvement of teaching efficiency may entail adopting a variety of measures such as further reducing class size, allowing more time for preparation, and increasing the quantity and quality of teaching aids. For our part, we are convinced that one very important measure would be to expand substantially opportunities for in-service training and to reward successful performance in such training with promotion and salary inducements.

6. Evaluation of post-secondary education

There are so many imponderables and such a lack of hard information about the present effectiveness and future direction of post-secondary education that it seems to us a matter of some urgency that the necessary information should be collected to ensure that the Minister of Education is better placed to monitor the system and to formulate policy. We return to the theme of evaluation in the next chapter.

VI

POLICIES FOR REFORM

It is proposed to consider the machinery for initiating and implementing educational reforms. We have seen that Greece embarked on the reform process against the background of the ending of military dictatorship and the imminent entry into the European Economic Community. With the aid of education, the intention of the government was both to reinforce the democratic basis of society and to raise the economic productivity of the nation. To this end it felt that educational standards in Greece must challenge comparison with standards in other countries at the same level of development. Two questions then arise: can the education system, as at present organised, fulfil the government's aims? Are the requisite resources available? We will now consider what seems to us the main issues surrounding these questions.

1. Policy formulation

It must be emphasized that the impetus for reform comes from outside the education system, which has neither a tradition of initiating reforms nor the capacity to do so. The decision to initiate reforms and the formulation of appropriate policies to attain them is made by the government, although the education network contributes to the goal-setting process.

Since 1960 the broad lines of educational development have been determined within the context of overall social and economic planning. National development in Greece is foreseen within perspectives of ten years but based on five-year plans, subject to annual adjustments. It is the Ministry of Co-ordination that largely prepares the guidelines to which the government refers in determining its overall social and economic policies, including education. The manpower implications of education policies are worked out in committees which include employers' and trade union representatives. It is then the function of the Ministry of Education to execute the policies proposed by the committees as modified by government. The respective roles of the Ministries of Co-ordination and Education may be illustrated in relation to the forecasting of manpower needs. The manpower forecasters in the Ministry of Co-ordination make projections concerning labour market needs though they must rely on the Ministry of Education for data on the education system. However, it is the responsibility of three Ministries (Co-ordination, Education and Finance), to determine what the forecasts imply for educational resources, above all for building requirements and teacher supply.

Two points need to be made about the practice of including education in overall development plans. First, the specific proposals for educational development are no more than indicative and ultimately depend for their application on whether the appropriate resources are made available. Thus, the Ministry of Education proposes reforms, but it is for the Ministry of Co-ordination to determine what capital and the Ministry of Finance what operational resources will be made available. Second, it is not considered essential that all educational reforms must slot neatly into the long-term timing and funding of overall national plans. This is important because it means that, pragmatically, both structural and quantitative changes in the education system may be introduced without necessarily being synchronised with changes in other social and economic sectors.

2. A centralised system

The education system in Greece is highly centralised and indeed sometimes described as analogous with the system in France*, which is often cited by comparative educationists as a centralist model *par excellence.* The system is governed by Parliamentary laws and executive acts (presidential decrees and ministerial decisions) – setting forth the organisation of the schools and universities, the content of the curriculum, the textbooks to be used in each subject, the timetables of the schools and the organisation of national examinations – and managed by a powerful centralised bureaucracy. The recent reforms will be far-reaching in their effects but, significantly, they do not include any concrete proposals for decentralisation and throughout our visit we heard few references to such currently fashionable movements as democratisation and participation, although these concepts are mentioned in the Background Report and were referred to during the Parliamentary debates on the reform legislation.

The centralised structure of the Greek education system is explained by the relatively recent emergence of the modern State and the prolonged struggle to establish a stable parliamentary form of government. There is simply no tradition of local autonomy in the making of educational policy and control of the schools.

Centralisation also has several advantages at the present stage of the evolution of education. First, it means that major reforms can be introduced throughout the system despite any opposition. Second, it means that resources can be equitably distributed, at least up to a point, to all parts of the country. Third, when a government decides to treat the provision of education as a top national priority, as the present government has done, it has the power to will the necessary resources. In short, the recent reforms could not possibly have been instituted rapidly and simultaneously in a decentralised system or by an indecisive government.

The Ministry of Education and Religions

The Minister of Education is responsible for implementing the laws and decrees relating to education and for supervising the entire system. His control over the system is detailed and strict. He is supported by two Vice-Ministers whose areas of responsibility vary according to his judgement of current priorities. The Ministry is divided into four directorates under the overall control of a Secretary-General: (*i*) general education; (*ii*) technical/vocational education; (*iii*) higher education; (*iv*) investment planning and operational research. It operates through a network of regional and local administrations as follows: for pre-primary and primary education – 15 regional administrations and 240 districts; for general secondary education – 15 regional administrations and 80 districts; for secondary technical/vocational education – 4 regions and 18 districts.

In many OECD countries the Ministry of Education is alleged to be hierarchical, authoritarian, complex, secretive and impervious to external advice. Similar allegations may be heard in Greece. They presumably derive from the fact that in the past the task of the Ministry was to conserve a traditional system by enforcing detailed rules and regulations. Now, however, it is called upon to implement a number of far-reaching reforms which, if they are to be effective, necessitate, among other desiderata, being quick to respond to changing societal demands, particularly demands brought about by technological changes in the economy, and being able to communicate successfully with the public. We would simply observe that the experience of other OECD countries shows that important reforms in school structures and curriculum and in the relations both between sectors within the education system and between the system itself and other social and economic systems cannot be implemented quickly and effectively in the absence of an innovative spirit, flexible rules and regulations and some degree of decentralised decision-making.

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* We are not unaware of the new decentralisation moves in France.

The Planning Directorate within the Ministry of Education is already playing an important role in providing a firm statistical basis on which to formulate detailed plans, in monitoring trends in the system, and in preparing the ground for creating new institutions such as the KATEEs, and we were informed that it has begun to initiate research into problem areas both as regards resources and pedagogic practice. Beyond this, in considering how to measure up to the new demands imposed by its reform programme, the Ministry of Education may wish to reflect whether there would not be an advantage in:

i) developing more effective machinery for regular consultation with other sectors of government and with interest groups able to contribute to or affected by education policies, e.g. labour market representatives;

ii) reducing and simplifying the existing code of rules and regulations;

iii) lowering the level at which routine supervision is exercised so as to leave Ministers and general directors more free to concentrate upon policy matters;

iv) developing the role and responsibility of teachers within the schools and vis-à-vis the local community;

v) strengthening the policy analysis and development and evaluation capacities of the system.

More open planning

Several spokesmen, including the Chairman of the Parliamentary Education Committee, were at pains to inform us that the draft laws leading to the reforms were widely discussed and that details of their implementation were modified in the light of the criticism that they aroused. Thus, Parliament fully considered the draft laws and gave its assent with virtual unanimity. It is still our impression, however, that reform proposals might be strengthened and reforms more effectively implemented if greater efforts were made to draw a wider net of interest groups into the policy formation process before draft laws reach Parliament. For example, in addition to the Parliamentary debates that take place hearings at which outside interest groups could express their views might be increased and improved by establishing the appropriate consultative process.

We noted that the teachers' associations are often consulted but that their influence is not decisive; that there is a national parents' association but that it is unrepresentative and carries little weight; that the trade unions at large evidence little interest in educational matters but that there is some consultation with employers' representatives.

Decentralisation

The decentralisation of decision-making and administration has been considered, we were informed, but would be difficult to initiate. (One spokesman said that Greece had noted with interest the recent decentralising trend in Sweden.) A start had been made, however, by allocating investment budgets to the *nomarchies* (regional administrations) which they could, if they so chose, apply according to their own assessments of needs and priorities. We were informed, however, that the nomarchies exist to carry out the policy and enforce the regulations of the central administration. In order to improve the general quality of the education service it would seem necessary to involve a wider range of interest groups in the decision-making and implementation process at the local as well as at the national level.

The financing of education

As we have seen, the annual budget for education takes into account the broad guidelines put forward by the Ministry of Co-ordination. Under the aegis of that Ministry it is KEPE (Centre for Planning and Economic Research) where guidelines on national investment, including educational investment, are prepared. KEPE has no formal power but may offer recommendations that imply interventionist policies. The proposed level and distribution of educational expenditure result from consultations among officials of the Ministries of Co-ordination, Finance and Education, but in the last resort the influence of the Finance Ministry, which controls the annual budget, is the critical factor.

Whether judged as a percentage of the GNP or of the national budget, public educational expenditure has always been low by comparison with that of most OECD Member countries. An OECD report published in 1965 but citing statistics from about 1960 declared:

> "Despite the recent increases in educational expenditure, the proportion of national income devoted to education in Greece remains low, as compared with other countries. A lower ratio is shown for Greece than for any other OECD Member country (1.41 per cent as compared with an average of 3.21 for all European Members of OECD)."[21]

The following table shows that by comparison with the nine Members of the EEC Greece had still in 1975 by far the lowest public educational expenditure as a percentage of GNP. Nevertheless, we were assured that, as regards resources, education has recently fared well and will continue to do so. The rate of expenditure is rising faster than GNP in spite of the government's overall deflationary policy. A real increase in expenditure of 20 per cent has been committed for the present planning period, 1978-82. Recurrent expenditure is increasing faster than capital investment because of the momentum behind it and this has led to a striking improvement in the teacher/pupil ratio. On the investment side the requirements are daunting. As one official put it: "No matter how many buildings we put up there will not be enough during the next five years!!".

Although far from arguing that levels of expenditure alone can account for high quality education provision, we cannot but endorse today what an OECD report on Greek education claimed in 1962:

> "But the big need in Greek education is simply money, as this report has emphasized several times, the greater part of which, inevitably, must come from Greek resources."[22]

We suggest that, if the extension of compulsory schooling is to achieve its aims, still greater capital and recurrent investment is required with a view to lowering pupil/teacher ratios, meeting school building needs, providing more in-service training for teachers and increasing the quantity and improving the quality of equipment.

It would also be beneficial if the public education system were to exercise more control over its own financing. As things are, the Ministry of Education can only be sure of the resources available within a one-year time frame. We wonder whether,

INDICATORS ON TOTAL EDUCATIONAL EXPENDITURES FOR THE EUROPEAN COMMUNITY (EUR.9) AND GREECE

	Eur. 9	Germany	France	Italy	Netherlands	Belgium	Luxembourg	United Kingdom	Ireland	Denmark	Greece
	(*a*) 1975										
Expenditure as a % of GDP	5.3	5.0	4.8	4.4	7.2	6.2	4.8	6.4	6.4	6.9	2.8*
Share in total expenditure in % of general government	11.4	10.7	10.7	9.7	13.2	12.1	9.7	13.4	13.0	14.5	10.3*
Current expenditure	85.6	78.5	87.9	88.9	87.5	94.4	83.9	88.5	87.4	84.8	75.3*
of which: staff	68.7	63.9	75.3	78.4	69.3	77.9	77.7	61.1	66.7	58.6	–
Capital expenditure	14.4	21.5	12.1	11.1	12.5	5.6	16.1	11.5	12.6	15.2	24.7*
By level of education:											
Pre-primary and primary	29.0	22.8	32.0	36.2	34.3	27.1	31.3	28.9	36.8	59.7	31.0**
Secondary	46.0	52.8	47.1	43.8	38.9	48.4	60.7	40.2	39.1		36.4**
– first cycle	–	39.6	–	25.8	30.9	30.5	–	19.8	20.6		28.6**
– second cycle	–	13.2	–	18.0	8.0	17.9	–	20.3	18.5	14.7	
Tertiary	15.4	15.7	13.4	10.9	17.9	15.6	1.9	16.5	18.0	19.2	26.2**
Special education	3.7	5.2	3.0	0.1	4.6	4.3	4.4	3.6	2.3	3.6	–
General administration	2.6	1.3	4.4	1.1	1.9	1.7	–	3.9	3.4	2.3	5.4**
Non-itemized	3.2	2.2	–	7.9	2.4	2.9	1.7	6.9	0.3	0.6	0.3**

Source : Education and Training 1970/71 - 1977/78. Eurostat, 1980.
* Figures calculated on the basis of Statistics from Public budget and OECD economic data.
** Data supplied by the OECD Secretariat on the basis of the joint UNESCO/OECD questionnaire on Statistics of Educational Finance and Expenditure (1975).

	Eur. 9	Germany	France	Italy	Netherlands	Belgium	Luxembourg	United Kingdom	Ireland	Denmark	Greece
	(*b*) 1975-1976-1977										
Expenditure as a % of GDP											
1975	5.3	5.0	4.8	4.4	7.2	6.2	4.8	6.4	6.4	6.9	2.8*
1976	5.2**	4.8	4.8	4.7	7.2	–	5.6	6.0	6.2	6.6	2.8*
1977	5.2**	4.6	4.9	4.8	7.2	–	5.3	5.6	6.2	6.4	3.0*
Share in total expenditure (% of general government)											
1975	11.4	10.7	10.7	9.7	13.2	12.1	9.7	13.4	13.0	14.5	10.3*
1976	11.4**	10.3	10.8	11.0	13.0	–	10.7	12.8	12.6	13.8	9.8*
1977	–	10.4	10.9	11.1	12.9	–	9.7	12.6	–	–	9.7*
Total expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Current expenditure											
1975	85.6	78.5	87.9	88.9	87.5	94.4	83.9	88.5	87.4	84.8	75.3*
1977	–	85.0	89.3	89.5	91.2	–	83.4	91.1	86.2	87.3	78.4*
Capital expenditure											
1975	14.4	21.5	12.1	11.1	12.5	5.6	16.1	11.5	12.6	15.2	24.7*
1977	–	15.0	10.7	10.5	8.8	–	16.6	8.9	13.8	12.7	21.6*

Source : Ibid. * Data supplied by the OECD Secretariat. ** Eurostat estimate.

without infringing accepted financing control procedures, it might not have a five-year projected expenditure plan which could be reviewed annually but which would permit steady planning and policy development. Such a provision has already been made for technical and vocational education (Art. 1, para. 8- Law 576/1977).

3. Policy research and analysis

It is our impression that the Greek education system would profit from a more explicitly organised process of policy research and analysis. The first need, perhaps, is to have more informed minds analysing the current problems and anticipating the long-term needs of the system. To this end we would suggest that encouragement should be given to the study of educational development and research within at least a few of the post-secondary institutions and in all the teacher training colleges. Greece could only gain from having a broadly based professional community within and without the Ministry of Education engaged in policy research and analysis activities in education.

We believe that the role of KEME (Centre for Educational Research and In-service Training of Teachers) needs to be clarified. KEME, which was created as recently as 1976 as a consultative body, enjoys independent status and reports directly to the Minister of Education, who also has his own advisers within the Ministry. Its main consultative functions are:

i) to design and develop curriculum;
ii) to plan, approve and publish textbooks;
iii) to undertake research;
iv) to manage pilot schools;
v) to plan in-service training for teachers;
vi) to examine and advise on all draft laws and decrees pertaining to general and technical/vocational education.

It must operate within the bounds laid down by legislation, usually in the form of presidential decrees, but since, as almost everywhere else, the legislation is often couched in general terms it is left with some freedom of initiative in putting forward new ideas. At the same time, it must be stressed that executive powers rest with the general directorates in the Ministry of Education.

So far KEME has been under tremendous pressure to prepare textbooks in the demotike, to bring the content of the various courses up to date and to develop a new curriculum for technical/vocational studies. We believe that this pressure on KEME is bound to continue for a long time because the very speed at which it has been accomplishing its work means that it must be vigorous in following up the effects and making all necessary revisions. For this purpose, however, it clearly requires strong management and adequate resources.

4. The role of the inspectorate

The present functions of the inspectorate are essentially administrative. It sees to it that the rules and regulations laid down by the Ministry of Education are enforced. We believe that it could be used with advantage to play a major role in the research and development process, especially in evaluating the effects of educational reforms and in disseminating information throughout the system about good practice. This would entail, of course, a major change or at least broadening of functions, including a new relationship between inspectors and teachers. Inspectors would also have to undergo some relevant retraining.

5. The international dimension

A recent report seemed to accuse the Greek education system of being insular:

> "It should be noted that the behaviour of the Greek educational system vis-à-vis its international environment has always been conservative and one could say that educational developments outside the national sphere have been looked upon with suspicion and fear. This has contributed to the sluggishnesses of the system in adapting itself to actual socio-economic changes."[23]

The very fact that we are now engaged in a third OECD study of education at the invitation of the authorities is perhaps sufficient to dispel any notion that Greece is in reality unreceptive to external ideas. It may well be, however, that more deliberate efforts are required to ensure that information about interesting ideas and trends observed in other countries is fed into the process of research and development and widely disseminated throughout the education service.

Compared with many other countries, an usually high percentage of Greeks study abroad, especially at the post-secondary level, and many educational administrators have acquired doctoral or masters degrees in education at foreign universities. There appears to be a problem, however, in translating their overseas knowledge and experience into action in terms, notably, of what happens in the schools and classrooms. It may be that they concentrate all their time and energies on obtaining a qualification and remain isolated from the real world of education outside the institutions that they attend. It may also be, however, that they find it impossible to apply their overseas knowledge and experience in face of an impervious system. If this is so, the Ministry of Education may wish to consider ways and means of capitalising effectively on the now untapped potential of so many teachers and administrators.

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6 *Policies for Science and Education, Country Reviews: Greece,* OECD, Paris, 1962, p. 25 .

7 C. Soumelis, "Greece: A Case Study" in *Individual Demand for Education,* Vol. II, OECD, Paris, 1979, p. 253.

8 *Caring for Young Children,* OECD/CERI, Paris, 1982.

9 *Education and Development Country Reports – The Mediterranean Regional Project: Greece,* OECD, Paris, 1965, p. 33.

10 Cf. "*Demotike* is alive in the mouths of the people: it echoes the people's natural linguistic sentiments; and it speaks directly to their souls." E.P. Papanoutsos, "Educational Demotism", in *Comparative Education Review, op. cit.*, p. 49.

11 *The Mediterranean Regional Project: Greece, op. cit.*, p. 54.

12 According to a recent statement based on data relating to the years before the reform of 1977: "It is typical that in middle technical education in Europe, only Malta has a lower rate of female participation than Greece". (Maria Eliou, "Those Whom Reform Forgot", in A. Kazamias, *op. cit.*, p. 67.)

13 OECD, *Individual Demand for Education,* Vol. II, *op. cit.*, p. 304.

14 *Background Report,* Tables 2.33 and 2.34.

15 *Individual Demand for Education,* Vol. II, *op. cit.*, p. 282.

16 *Ibid.*, p. 316.

17 *The Mediterranean Regional Project: Greece, op. cit.*, p. 33.

18 G. Psacharopoulos and C. Soumelis, "A Quantitative Analysis of the Demand for Higher Education" in *Higher Education,* 1979, p. 175.

19 "A serious weakness of the present system of education at post-secondary level is the very small number of sub-university institutions". OECD, *The Mediterranean Regional Project: Greece, op. cit.*, p. 26.

20 OECD, *Individual Demand for Education,* Vol. II, *op. cit.*, p. 325.

21 *The Mediterranean Regional Project: Greece, op. cit.*, pp. 66-7.

22 *Policies for Science and Education, Country Reviews: Greece, op. cit.*, p. 27.

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Part Two

RECORD OF THE REVIEW MEETING

Paris, 12-13 November 1980

I

POLICIES FOR REFORM

Miss Browne introduced the Examiners' Report. Stated simply, she said, the examiners had been looking at a newly reformed and still reforming education system in a country with a long tradition of academic education in the narrow sense of that phrase, with a belief in the virtues of that form of education marked by a steady growth in participation rates but a growth not yet even between city and countryside and between social classes, and with a long pent-up aspiration to educational expansion and reform which had suddenly become feasible. In addition Greece was a country with a profound attachment to democratic virtues and a full awareness of the economic development necessary to underpin its future.

Spread out before the examiners had been an education system which in a single move had been grafted on to a highly competitive academic system, backed by only nascent and somewhat unformed arrangements for technical and vocational training:

- an additional three years of compulsory schooling
- both within compulsory schooling and at higher levels a new bias towards technical education to the extent of establishing a bifurcation into general and technical lycea beyond compulsory schooling.

All this in a country which knew that esteem for technical and vocational education, let alone parity of esteem, had still to be established.

Manifest also had been a desire to confirm that openness of access to the highest education that is the adjunct of democracy in a country which was sadly aware that, under its present dispensations, the right of access was literally bought by those families that felt obliged to send their children to the frontisteria to ensure their success within a selective system and by a smaller number who went to the private sector.

In conclusion, Miss Browne suggested that the four essential topics to be discussed were:

1. Planning educational reform and the problems of implementation.
2. Institutional structures and the limitations of restructuring as a means of reform.
3. The whole sector of vocational and technical education and its place within education and in public esteem.
4. Last and most important the quality of education – both as regards its nature or kind and its degree of excellence – in its relationship to equality of opportunity.

Miss Browne stressed that the examiners had come to the conclusion that, if the broad aspirations for reform that the Greeks had in mind were taken into consideration the quality of education in the institutions was the key factor. That was why the examiners believed teacher training was of the utmost importance.

Miss Browne hoped that the Minister would also preface his remarks by bringing the Committee and the examiners up to date with the changes that had taken place since the examiners' visit.

Replying, *Mr. Kontoyiannopoulos,* leader of the Greek Delegation, wished to stress the funamental role played in the general life of Greece by education and culture. The whole Greek nation, each Greek individual, aspired to education and culture, a fact illustrated by the efforts made by every Greek family to give their children as high a level of education as possible and by their readiness to make material sacrifices in order to do so. It was important to understand the reasons for this determination. In the first place, modern Greeks were fully conscious of their great classical inheritance. Second, the Greeks had striven throughout many centuries of foreign invasions to affirm their nationhood and their patrimony through their culture. Third, there was the fact that since the formation of the modern Greek state, education had been the means of enhancing social improvement.

There was no doubt that Greek history and Greek cultural traditions had left their mark upon the education system. The task had been to preserve positive aspects of Greek culture while at the same time meeting the socio-economic needs of the modern world, no easy undertaking since all aspects of education in Greece were politically highly sensitive. With every new measure announced objections arose, thereby eroding the permanent effect of any attempt at improvement. Two elements in particular had hindered reform: one, persistent over many years, the language problem. In Greece they had been using two types of language: the popular language spoken by the people, which was called *demotike,* and the official language known and used by the educated. This problem had caused considerable tension among Greeks. The other element, temporary and fortunately now at an end, the military dictatorship from 1967 to 1974, which in strengthening the forces of reaction had deliberately set out to retard changes in education. During a period in which all countries had been making serious efforts to reform their education systems, the military dictatorship had applied an outdated and reactionary educational policy. Return to democratic institutions had highlighted the urgent need to make up for lost time and to adopt a bold policy, particularly since the declared aim of the government was and still remained the appropriate preparation of the country in all fields of activity for its eventual entry into the EEC.

Mr. Kontoyiannopoulos then addressed the examiners' first set of questions.

Question 1

What motivated the authorities to institute the recent far-reaching reforms of the education system? Do the authorities foresee any reordering of priorities or any new priorities emerging in the light of changing needs in the eighties, particularly as a consequence of Greece's accession to the European Economic Community?

Mr. Kontoyiannopoulos stated that the technological revolution and the speedy economic development which had characterised the post-war period had been accompanied by important readjustments in socio-economic structures and in the scale of cultural values. Re-thinking of the role of education had taken place against this background. Indeed, careful attention had been paid to the close links which bound any education system to the cultural, social and economic structures of a particular country.

The general conclusions arrived at through this approach had led the Greek government to undertake its first overall reform of the education system, applying to education at all levels, and aiming to set up a modern education system which would ensure:

a) the maintenance and development of the national cultural identity together with the promotion of the cultural standards of the people;

b) democratisation of the system ensuring equality of opportunity;

c) full use of human resources towards the economic development of the country;

d) fulfilment of individual needs and aspirations.

In drawing up this reform, the government had been fully aware of the future implications of accession to the European Economic Community and had aimed specifically at an education system which would answer the new social and economic needs arising from it.

The dynamic nature of the reform had led to a continuous readjustment of priorities, to changes based upon new experiences and, where necessary, to the identification of fresh objectives. Thus it was planned in the near future to restructure both the basic training and the in-service training of the teaching profession, to expand pre-school facilities, to develop the teaching of handicapped children, to set up a training system for educational administrators, to expand research facilities and to establish schemes of accelerated vocational training for all unskilled young people who had reached the age of eighteen.

Moreover, a set of measures had been implemented beginning from the 1980-81 school year. These measures were: first, establishing *school centres* in problematic areas. In each major village pupils from all the neighbouring villages would attend. A fully equipped primary school and eventually a gymnasium would be set up, providing together a true centre for education in the region. A certain number of kindergarten teachers, organised in mobile units, would be available in the region for the benefit of infants in communities too small to qualify for pre-school facilities.

Second, within *primary schools* it had been decided that all pupils would be put up into the next year automatically so as to eliminate the psychological anguish which could result from having to repeat. Only persistent truants would be kept back. This presupposed emphasis upon individual tuition and upon as much special help for weak pupils as could reasonably be managed. At this level, marks would be replaced by three general categories of attainment (A-B-C). Special education for handicapped children was also envisaged and a law to this end was at present before Parliament.

Thirdly, in the *gymnasium*, examinations both at the end of the whole course and at the end of each year were to be suppressed in favour of continuous assessment throughout the school year. Evaluation of pupils' progress would take place every three months and would be based upon class participation as well as oral and written tests. The final annual mark would be the average of the three marks gained in the course of the school year. Moreover re-sit examinations in September would be replaced by a backing-up course in June, eliminating the former cases of uncertainty for which plans could not be made.

Fourthly, admission to the *lycea* would be open to pupils in three categories: those who had obtained an average of eleven out of twenty (including the mark in the school-leaving certificate) but who had obtained an average mark of thirteen out of twenty across the board, regardless of marks in individual subjects.

Fifthly, pupils mights *transfer* from the general lyceum *to the technical lyceum* at the end of the first year, provided they had originally qualified for both lycea. At the end of the second year, all students were entitled to transfer to the other type of lyceum if they so desired. This new measure had been implemented in practice by a transfer of students from the general lyceum to the technical/vocational lyceum. Thus, 2 000 students had transferred from the general lyceum to the technical/vocational lyceum and only 13 students in the opposite direction.

Question 2

The comprehensive Background Report prepared by the Greek authorities states that the implementation of the educational reforms assumes the availability of

substantially greater resources than in the past. In view of the prevailing constraints on the Greek economy and the competing claims of other social sectors, are the education authorities satisfied that the appropriate amount of resources has been made available and will continue to be made available until the reforms have been fully implemented?

Mr. Kontoyiannopoulos said that education was considered a high priority issue in the financial and budgetary policies of Greece. Despite the difficulties arising from inflation and the energy crisis, the credits allocated to education had been increased and had indeed attained the highest level which could reasonably be expected.

Notwithstanding the fact that Greek defence expenditure had been doubled, and that Greece was spending more on defence than any other member country of NATO (7 per cent of the Gross National Product, i.e., almost twice as much as the other European countries and more than the United States), education had been spared the financial restrictions imposed upon other fields of national activity. Indeed, whereas for the period 1974-1979 the average growth of the GNP had been 4.6 per cent, the corresponding growth in expenditure upon education had been doubled and now reached 12.1 per cent of GNP. The Prime Minister of Greece in his declaration concerning next year's budget had set up the priorities as follows: defence, education and social welfare/public health.

Mr. Karamitsanis then confirmed that during the period 1974 to 1979 the mean annual educational expenditure had been 12.1 per cent of the GNP. The rise in inflation during 1980 and 1981 had led the authorities to make essential cuts in public expenditure in all fields. Yet, although obliged to cut down operational expenditure on some minor sectors of education, educational investment had been increased.

Between 1980 and 1981, operational expenditure on education was expected to increase by 13.3 per cent (the increase in technical and vocational expenditure would be 21 per cent) – while the corresponding figure for educational investment was to be 24.7 per cent (the increase in technical and vocational education investment would be 42 per cent). As the inflation rate for 1981 had been forecast as 20 per cent, it might be seen that the authorities had limited the outgoings on operational expenditure to be below that figure but had not hesitated to allow educational investment to exceed it.

The government's school building record for 1975 to 1980 was also worth noting. The sum of 35 360 million drs. was spent, as compared with only 970 million from 1962 to 1967 and 9 600 million drs. from 1968 to 1974. The result of this great effort had been the construction of 16 595 new classrooms, that is, more than were built during the whole previous period of 150 years of modern Greece.

Question 3

One of the major objectives of the recent reforms was to remove inequalities of educational opportunity among social groups. Are the authorities satisfied that enough is now being done to serve the interests of those living in rural areas; adults; minorities? Are girls and women equally treated with boys and men?

Mr. Kontoyiannopoulos stated that equality of opportunity was the consistent objective of every education system although in practice it belonged more to the ideal than to reality. Statistics provided in the Background Report showed that in Greece inequalities regarding sex, etc. were less marked than in some other countries.

A number of measures had been taken in Greece in the context of the reform to enhance equality of educational opportunity. These included the extension of compulsory schooling from six to nine years, for all Greeks the opening of certain new schools at all levels in all regions, free lessons, free books at all levels of education, free transport for pupils living in remote areas, the confirmation of *demotike* as the language of instruction, the new system of admission to the universities – all these constituted positive measures to ensure equality of opportunity for all young Greeks, irrespective of their sex, religion, parents' income or place of abode.

All these measures had been promoted through continual consultation with all groups concerned, i.e. those opposing the government's proposals, representatives of the teachers' unions and the opposition parties. Institutionalised meetings had taken place every three months for consultations with the superintendents at all educational levels in which there had been a systematic examination of the issues and problems of the implementation of the reform.

Mr. Sakellaridis added information concerning the two points regarding consultation and implementation of the reform:

a) *Consultation before adopting the new educational measures:*
In the case of technical and vocational education, for example, the following process had taken place. The working group in charge of researching and planning the structure of the technical and vocational education system had sent out questionnaires to the employers and the students and teachers of technical and vocational education. The working group had collected these data and had systematically taken them into consideration in the planning of this important part of the reform.

b) *Implementation practices for the reform:*
KEME had established a feedback communication process with the teachers in secondary education schools focusing on the issues raised in implementing the recent educational reform. It was on the basis of this exchange that the texts dealing with instruction to facilitate the application of the reform measures and the better use of the new instructional materials had been issued.

II

THE SCHOOL SYSTEM

Mr. Lundin pointed out that as regards *pre-school education* the examiners had noted the gradual increase in participation rates. Now they would simply like to ask the Greek authorities to state in general terms what was their policy for its further development.

Primary education appeared to the examiners to be a sector about which there was general satisfaction. They would be interested to hear, however, what changes had been introduced into the curriculum, or were under discussion, so as to take advantage of the addition of three years of compulsory schooling. Linked with this was the central question of the purpose of a longer period of compulsory schooling. To put it in another way, what were seen to be the main differences between the new nine-year and the old six-year school?

When the examiners visited Greece, some critics had complained that the school reforms had been introduced too quickly in view of the scarcity of resources and the lack of time for recruiting teachers. What had the government's reasons been for acting with such despatch? It would be helpful if, in dealing with the issue of resources, the Greek Delegation would comment on the future of one- and two-teacher schools and on the Ministry of Education's views on the matter of school size.

Mr. Lundin then turned to three questions concerning the curriculum. First, there was the general issue of how broad and flexible the secondary school curriculum ought to be. In particular, what measures had been taken or would be taken to serve the needs of pupils who were clearly not destined to gain university admission. Second, all members of the Education Committee would no doubt be interested to know the Greek authorities' reasons for prescribing a single textbook for each subject. Third, as the examiners had said in their report, it was wise to have adopted teaching in the *demotike*. But they would like to know whether any precautions had been taken to prevent it from being unduly formalised to the detriment of children from limited linguistic backgrounds.

Next they would like to hear something about internal and external influences on the pupil's choice of subjects for further study during his or her school career. What counselling and guidance mechanisms were in use? And what was being done to assist parents in helping their children to make sound choices? In this connection, he would stress that the examiners had constantly been told that Greek parents cared passionately about their children's education and greatly influenced their choices and learning habits.

Finally, Mr. Lundin raised the issue of selection for university admission, an issue that was of burning importance in more than one OECD Member country. Although changes in the selection system had taken place since the examiners' visit, problems appeared to remain. Were the Greek authorities satisfied that the present system was equitable and efficient? Were they proposing any modifications to it?

Question 4

What importance is attached to the development of pre-school educational opportunities and are there any plans to give priority to satisfying the early needs of children from disadvantaged backgrounds? Is there any intention to aim eventually at lowering the compulsory school starting age?

Mr. Kontoyiannopoulos stated that further development of pre-school education facilities was a basic aim of the general education policy. The State proposed to increase the number of public nursery schools until there should be sufficient places to meet the needs of all children between three and a half years and five and a half years. It should be stressed that this policy was already in application in under-privileged rural regions, and it would be gradually expanded to the great urban centres where there would continue to be a shortage.

If the intention of the second half of the question was to ask whether there was at present any proposal to reduce the minimal school age (five and a half years) to include pre-school instruction, the answer was 'no'. The intention was nevertheless to expand pre-school education facilities to cover fully the social demand for this level of education.

Question 5

In what ways is it proposed to modify the aims and curriculum of the primary school in view of the addition of three years of compulsory schooling?

Question 6

Having extended the period of compulsory attendance by three years Greece now effectively provides nine years of a common school experience for all pupils other than those attending private schools. What are the principal aims of the last three years of common schooling? In particular, what was the reason for making them compulsory?

Mr. Kontoyiannopoulos said that the curricula of both primary schools and gymnasia had already been considerably modified. Changes had been made to correspond with the increase to nine years of compulsory schooling and to ensure the avoidance of repeating years. It was true that the teaching of writing and of the primary elements of arithmetic, together with the general educational function of the primary school had been modified after the introduction of nine years of compulsory schooling. At the present time, a new curriculum was being drawn up, taking into account the experience gained so far from the temporary syllabuses now in use.

Mr. Karamitsanis added that the common school experience to which the question referred concerned pupils in both public and private schools. The gymnasium prepared pupils for a more effective entry into active life by guaranteeing them a general education, some basic knowledge of technology and career counselling. It was therefore obvious that the lengthening of the number of years had as its aim to improve the education given to pupils and in general to raise the cultural level of the entire population.

Question 7

What are seen to be the advantages and disadvantages of one- or two-teacher primary schools? What are the government's intentions with regard to the future of such schools?

Mr. Kontoyiannopoulos pointed out that schools with only one or two teachers had both the advantages and disadvantages enumerated in the Background Report and in the Examiners' Report. It had however to be stressed that such schools were unavoidable in a country like Greece where the geographical features – hundreds of islands and difficult mountainous terrain – made the village school with few pupils essential whenever transport problems were insuperable. However, as had already been said, school centres with at least three teachers were being set up and free transport was being provided for pupils. Such a system was already being tested in the mountainous region of Thesprotia and it was planned to extend the scheme to other mountainous and island regions.

Question 8

It has been asserted in certain quarters that the authorities have introduced the reform of secondary education too quickly in view of the need to find new places for thirty per cent of the age group, the scarcity of appropriate resources, and the lack of time for reorientating teachers. What is the authorities' answer to this assertion?

Mr. Kontoyiannopoulos said that the attainment of the objectives of an educational policy presupposed the existence of an economic plan setting up all the necessary conditions for obtaining essential funds and allowing time for schools to acquire premises, educational equipment, curricula and an adequate teaching staff. In this regard, it was necessary to emphasise once more the reactionary attitude which had characterised the seven years of military rule, the lack of planning, of research and in general of any will to improve and readapt the educational system.

All this explained why the government had found itself facing a basic choice: either to delay yet further the implementation of its programme of reforms until such time as the appropriate organisation should be in existence or to go ahead at once while attempting to devise an urgent temporary plan and then gradually to improve it. The second solution was preferred and had been consistently applied from 1974 to 1980 despite the international economic crisis which had obliged OECD Member countries to cut back expenditure on education. Greek policy had consistently been to increase expenditure on education. It was their belief that the results had justified the policy, particularly in comparison with unfortunate efforts in the past such as in 1959 and in 1964.

Question 9

We were informed that the grammar prescribed for instruction in demotike is formal and elaborate. If this is so, it may hamper the learning of pupils from homes where there is poor linguistic ability and diminish the good effects of the reform? What steps are the authorities taking to ensure that teachers will be flexible in applying the rules of the language when, for instance, correcting orthographic and grammar faults?

Mr. Sakellaridis explained that the grammar textbook gave a precise description of the neo-hellenic language, that is to say of the language spoken today by all citizens of the country. Consequently there was no difficulty in assimilating the language since all pupils, regardless of their parents' education, knew it already. Furthermore, the spelling had been simplified and instructions were given to teachers on how to teach the language rapidly without stressing unnecessarily details which were without importance.

Question 10

It is commonly accepted in Greece that parents exercise considerable influence over the learning habits and educational and career choices of their children.

What measures have been adopted or are under consideration for giving parents a better understanding of their children's learning needs and career possibilities?

Question 11

In order that the technical/vocational sector of the school system may attract good students in sufficient numbers it is apparent that both parents and pupils must be well informed about career opportunities and the aptitudes of each student should be identified before the end of the gymnasium. This information needs to be provided by qualified specialists. Are they satisfied with their plans for developing counselling in the gymnasium quickly and effectively? What policies are envisaged for increasing the number and improving the competence of those concerned with educational and occupational guidance of pupils at all levels as well as with job placement?

Mr. Kontoyiannopoulos agreed that it would take a long time to change the attitude of parents but said that the State was making great efforts in this regard. From 1980 onwards a scheme would come into force providing information for the general public. It would consist of press announcements, radio and television programmes, the distribution of booklets, travelling and permanent exhibitions, etc. *Mr. Karamitsanis* added that it was also worth noting that a highly important factor in the increase in the numbers of pupils entering the first year of middle level technical schools in the current year had been the installation of a special pavilion at the International Exhibition in Thessalonika held in September 1980. Enrolments in Thessalonika had increased by 49 per cent as against a national increase of 28 per cent.

Mr. Paleokrassas said that the introduction of school and career guidance had been enhanced in all gymnasia. Seminars to this end had been organised both in Athens and in the provinces; researchers had been sent abroad to make special studies, and information booklets had been produced to provide assistance to gymnasium teachers. Within the framework of the schools counselling system, regular meetings between the school and the parents of pupils in their last year had become established practice; parents were thus fully advised of the part they might play in deciding the educational and career choice of their children. Furthermore, commencing with the current school year, schools television programmes and the information network already mentioned were in use for educational and careers guidance purposes.

It was hoped that all these measures, in combination with the activities of the vocational guidance centres under the aegis of the labour authorities, would prove efficacious. A lasting improvement in educational and careers guidance was indeed an important facet of their educational policy.

Question 12

The new selection system for the transition from the gymnasium to the next level and from the end of secondary education to the post-secondary level is the subject of much controversy. It is said to be socially inequitable in that many pupils suffer from regional disparities and to impose an appalling strain on pupils who must every day spend long hours in study and as a rule attend one of the frontisteria. *Are there any plans for modifying the selection system as it now operates, for example by adopting a mean grading system and allowing pupils who fail to repeat a year?*

Question 13

Are the authorities satisfied that the new admission system for entry into post-secondary institutions is equitable and efficient and that the new procedures go far enough to decrease the attraction of the **frontisteria?**

Mr. Kontoyiannopoulos said that the fears expressed by the examiners were groundless in view of the measures instituted in September 1980 and described at length in the Background Report. The answer to Question 13 would be dealt with under Question 28.

Question 14

To the external observer the practice of prescribing a single textbook for each subject, to which the teacher is required to adhere closely, seems to militate against effective teaching and learning. What is the official justification for this practice?

Mr. Sakellaridis explained that the single official textbook was prescribed for each subject in order to ensure uniform teaching in all schools. It was also necessary for practical reasons since free schooling entailed the issue of free textbooks, all published by a publicly-owned enterprise, the Educational Book Publishing Company. Then, at the lycea, pupils were now required to study for panhellenic examinations in subjects taught to an identical standard throughout the country. This also made a single prescribed textbook a sine qua non.

Question 15

At both levels, secondary education must now cater for a wider range of abilities and interests than in the past and for a substantial majority of students who will not ultimately enter university. Yet critics still complain of the dominance of academic subjects and an overloaded timetable and no one denies the continuing orientation of the curriculum towards university entrance. Are the authorities satisfied that in breadth and flexibility the new curriculum meets the needs of all categories of pupils? More specifically, does the curriculum include sufficient non-traditional and technical subjects?

Mr. Kontoyiannopoulos stressed that this point about curricula referred to a state of affairs no longer in existence. Reforming the education system had automatically led to changes. Examples were the various innovations introduced into the schools. Television programmes, technical subjects, school and careers counselling, numerous cultural activities etc., all had helped to modernise the education system and to reduce the 'traditional' nature of the curriculum. Thus the Greek education system had escaped from the 'one way street' leading on uniquely to higher education. Of course, other changes would be necessary. Indeed, they were already under way and would continue to be the object of unremitting efforts. Even now, the introduction of the social sciences into curricula was being studied. This was in agreement with the continuous change to which a dynamic education system should aspire.

At this point the *Chairman* of the Education Committee invited members of the Committee to put questions to the Minister and the Greek Delegation. Both he and several other members of the Committee proved to have a number of queries, especially concerning the way in which the Greek authorities were dealing with problems which their own administrations were finding or had found difficulty in overcoming.

The Chairman was concerned about two points. In the first place, he wondered how a system of education which offered free instruction at every level could, without unlimited resources, cater for the needs of every individual. Would it not be better if the considerable expenditure necessary to provide free education for those able to survive the process of selection be diminished in favour in those unable to? He wished to know what happened to these others. Second, he noted that the dangers of a system based on single textbooks outweighed the advantages which had been enumerated. Different approaches and texts could lead to similar standards but a greater depth of understanding. The use of one textbook risked producing uniform and unquestioning thought.

The *Swiss delegate* also referred to the matter of the single textbook. When, in French-speaking Switzerland, a new federal Constitution project had been introduced with the intention of according more power to the Confederation, the cantons had reacted in fear, had recoordinated at canton level and, as in Greece, had devised single textbooks. Unfortunately, textbooks were neither easy to produce nor to use; the whole scheme had proved too ambitious and the book too difficult. There was also the grave danger that in being restricted to a single text a teacher was at the risk of losing his personality. Had the Greeks encountered problems of this nature?

The *German Delegation* was interested in the progress made by the Greeks in the matter of pupil/teacher ratios. Were they satisfied with their advances? How much further did they intend to go? What ideal were they aiming at for the next five or ten years? The German administration was just now adding a further five years to its global plan, taking them up to 1990. This planning for the future had led them to wonder whether it was possible to fix such a thing as an ideal pupil/teacher ratio. What were the Greek views on this problem?

The *German delegate* had also been very struck by the examiners' strong comments on Greek 'cramming schools'. He wished to know what had accounted for such a development. Was it that university standards were too high? Was it fierce competition for university places? Or were parents not convinced that the quality of education in the schools was adequate?

The *delegate for Denmark* had two queries. First, in relation to the great effort made by Greece in its school building programme, how had this been planned in respect of the funds allotted? It appeared that the number of classrooms had been doubled in a short period of time. Were the buildings standardised? Were standard drawings in existence? Second, he returned to the German question relating to pupil/teacher ratios. He, too, wondered whether these could be used as a standard of education. He remarked that this was indeed the opinion of the Ministry of Finance in Denmark, but that the Ministry of Education knew very well that the answer varied according to the part of the country. In highly populated areas a high ratio might not necessarily be harmful whereas in rural areas it might be desirable to have a low ratio.

The *delegate for Turkey* wished to ask two questions: what had been the effect on the overall system of the abolition of marks and the repeating of years? And did the universities consider themselves to be part of the education system; if so, what part had they played in the reform programme? Could the meeting be told more about the proposed teacher training university and the role of universities in general in the training of teachers.

In replying to the questions of Education Committee members, *Mr. Karamitsanis* referred to the following recent data on the Greek school system:

	1974-75	1979-80	Increase
	Kindergarten		
Institutions	3 258	5 858	79.8%
Teachers	4 025	6 082	51.[illegible]%
Pupils	109 643	144 677	24.0%
Teacher/pupil ratio	1:27.2	1:23.8	−12.5%

	1974-75	1979-80	Increase
Primary			
Schools	9 729	9 771	0.4%
Teachers	27 818	34 802	25.1%
Pupils	855 785	907 734	61.0%
Teacher/pupil ratio	1:30.8	1:26.8	–15.0%
General Secondary Education			
Schools	1 137	2 159	89.8%
Teachers	16 343	28 516	74.4%
Pupils	458 805	600 375	30.8%
Teacher/pupil ratio	1:28.0	1:21.0	–28.5%
Technical and Vocational Education Upper Secondary and Higher (KATEE)			
Teachers	2 027	4 560	120.6%
Pupils	57 042	83 638	46.6%
Teacher/pupil ratio	1:28.2	1:18.3	–35.6%

The Chairman's doubts concerning high expenditure elicited the response from *Mr. Karamitsanis* that for Greece education was not a financial problem but a human and social right. Under Article 16 of the 1975 Constitution the State was obliged to provide all Greeks with the opportunity to develop their personalities to full capacity by means of education. The amounts spent on providing free education at the post-secondary level were not in any case so very high since only 15 per cent of the total age group were continuing their studies at that level.

In answer to the further doubts expressed by the Chairman and the delegate from Switzerland concerning the wisdom of using single textbooks, *Mr. Sakellaridis* replied that for the Greek authorities the problem was insurmountable since the government carried the financial burden of supplying free textbooks for all. But the books had been selected by a commission and their standards had been checked by KEME; it was not forbidden to teachers to use other books in addition to the set texts.

With regard to the problem of ideal pupil/teacher ratios, raised by the German and Danish Delegations, Mr. Sakellaridis explained that the current standards set were between ten and thirty pupils per teacher in primary schools and no more than thirty-five pupils in secondary schools. In practice there were seldom fewer pupils than the minimum limit per teacher but very rarely more than thirty-five in the secondary schools, where formerly there had sometimes been more than a hundred pupils per teacher. As for future developments, the Greek government would seek to attain the standards considered normal in countries generally accepted as being educationally advanced.

The substance of the replies of the *Greek Delegation* to the German Delegation's remarks concerning 'cramming schools' could be found elsewhere in this report.

To the Turkish Delegation's request for data concerning the effects of the recent abolition of marks and repeating, *Mr. Kontoyiannopoulos* had to report that as yet no facts were available since the measures had only just been adopted and were in the early process of implementation. The government intended to issue questionnaires during the last two years of primary school and the three years of secondary school as a means of monitoring progress and evaluating performance in different schools. The issues relatives to teacher training would be dealt with at the end of the discussion.

As for the universities and their view of themselves, they were indeed considered to be part of the education system. *Mr. Sakellaridis* explained that the Greek government has made important efforts to reform higher education at the university level.

The task of university reform, he said, had started even before the reform of the other levels of the education system. In 1974, right after the restoration of democracy in the country, the government had established a committee to put forward basic concepts for higher education reform. Given the full autonomy of university institutions their recommendations were sent to all groups concerned for feedback. These groups were the faculties and the Senate of each university, the General Assembly of the Students' Associations and the General Assembly of University Teaching Personnel. The process had lasted for almost a year, and the government, having collected all feedback responses, had set up another committee which incorporated all these views into a new scheme. This took one more year of work through continual consultations. The new recommendations were sent again to the university community interest groups to write their views on the specific issues. This time new disagreements and demands were submitted as feedback and the reform effort was blocked once more. Finally, another committee was set up to reconcile the positions of all interest groups. University autonomy did not permit the government to proceed with higher education reform with the same speed as for the rest of the education system. It was hoped that now, however, after all these efforts, there would emerge an agreed set of proposals.

III

EDUCATION AND WORKING LIFE

Mr. Schmidt introduced the section with the remark that every member of the Education Committee there present had, back in his own country, to answer the question: 'How do novel education measures affect the national economy and especially the labour market?' At a time when most OECD Member countries were facing high youth unemployment (averaging ten per cent of the young people under twenty-five in the EEC group) all reform measures at the upper secondary level had to be judged according to their contribution to a solution of this problem. There was no doubt that a well educated and professionally trained labour force was better equipped to adapt to change. All young people at whatever stage they left the education system should not only be able to perform as efficient workers but to play a part in reshaping the world of work and in serving the wider community. This pointed to the indissoluble link between general and vocational education.

In Greece, the authorities were now attempting to upgrade technical and vocational education through the creation of a new type of upper secondary school, the technical/vocational lyceum. This was proving difficult to achieve because the attraction of the universities was so compelling that the great majority of young people felt obliged to remain in the general education stream. The authorities were also developing a dual system of training at the work place combined with vocational training in schools. As in other countries, this required coordination among several ministries and between the authorities and the employers and trade unions.

The examiners proposed therefore that in this part of the discussion the two key issues concerned first the status of vocational and technical education and secondly the coordination of education and training programmes.

Question 16

To what extent are labour market considerations effectively taken into account in education planning and policy making and to what extent do the education and employment authorities believe they ought to be?

Question 17

What measures are being adopted to bring about optional coordination among all the various educational and employment agencies concerned with the education and training of young people?

Mr. Paleokrassas said that the Centre for Planning and Economic Research (KEPE), an independent institution attached to the Ministry of Coordination, periodically drafted five-year national plans for economic and social development in accordance with the requirements of the Constitution which were submitted to Parliament for approval. In these plans there was always a chapter on education, drafted by the Division of Educational Planning, which served as the framework upon which the

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Ministry of Education drafted its own more detailed five-year plan for the development of technical and vocational education. He added that this detailed plan was required by the new reform law 576/77 for technical and vocational education.

Question 18

Would the authorities see any benefit in expanding and reforming the present provision of apprenticeship training? If so, what sort of collaboration would be envisaged with other agencies, notably with employers and trade unions?

Mr. Karamitsanis explained that the State was taking action to expand and improve schools of apprenticeship under the aegis of the labour authorities.

As for the second part of the question, experimental technical/vocational courses at middle level had been set up in the current school year to provide theoretical instruction and practical work in subsequent training periods. Practical work would be taking place in private and/or publicly-owned enterprises and would be organised to fit in with instructional needs. The work would be paid. After taking into account the experience acquired from this initial experiment, the authorities would think of gradually generalising this practice.

Question 19

Central to the reform of secondary education is the creation of the technical/vocational lyceum. Why do the authorities attach so much importance to this new institution and why was it established as a separate sector of upper secondary education? What measures have they taken or are they considering in order to ensure its success as a credible alternative to the general secondary lyceum – for example by according equal status with general subjects to technical and vocational subjects with regard to university admission? Are they convinced that their intentions are best served by its being a separate institution?

Mr. Kontoyiannopoulos replied that one of the most important planks in the reform of the education system has indeed been the elimination of the 'one way street' and a change of direction towards the technical/vocational education which was suited to the needs of the technological, competitive realities of today. The old rigid structure of Greek education with no choices and no alternatives did not cater for the aspirations of young people or their parents; nor was it in tune with modern needs. The new system protected pupils from a premature choice of career by offering a choice between the various options in the second cycle of secondary education and allowing all pupils to go on to higher levels.

Mr. Kontoyiannopoulos added that two equal, autonomous types of lycea had been created – the general lyceum and the technical/vocational lyceum. These had been preferred to one comprehensive upper secondary school, exceptional in any case on the international education scene. They had feared that the development of the technical/vocational side would be hindered and indeed would gradually be swamped in a comprehensive school transplanted in Greece. In such a school, in the climate of past education in Greece, general education would predominate and preparation for higher education would again become the main preoccupation. This had been mentioned in the Background Report. Two types of lycea had therefore been deemed not only more just but mandatory. The priority accorded to technical/vocational lycea was thus only to be expected. As an experiment, ten new secondary centres were even so being built at present, each of which would cater for all types of secondary education, a model which is closer to the comprehensive approach.

Mr. Karamitsanis added the following points.

1. For admission to institutions of higher learning, marks gained in both categories of study at the technical/vocational schools, that is technological and theoretical, were given equal recognition.
2. The State had ensured that the school-leaving certificates of the two kinds of lycea should be regarded as equivalent, both in themselves (article 51, paragraph 4 of Law 576/1977) and as qualifications for entry into higher education (article 3, paragraph 1 of Law 1035/1980).
3. A bare third (32 per cent) of pupils admitted to non-university higher education (KATEE, etc.) come from technical/vocational lycea.
4. 12 per cent of the graduates of technical/vocational lycea went on to institutions of higher learning.

The measures taken seemed to have borne fruit. During the current school year, the first since their introduction, enrolment in the first year of technical/vocational schools had increased by 28 per cent as compared with the previous year. The fact that students could now change schools after the second year had also brought about a change in attitude. What was more, 2 000 pupils in general lycea had asked for transfer to technical/vocational schools alongside a mere 13 who had chosen the opposite course.

Mr. Paleokrassas added that there had been two reasons for the relatively dramatic shift of students from general to technical lycea during the current school year. The first was a recent measure introducing vertical and horizontal articulation between the two lycea. Secondly, a measure requiring that 32 per cent of all entrants into tertiary technical and vocational education institutions (KATEEs) should come from technical/vocational lycea. When first applied this particular measure had resulted in the rejection by KATEEs of a considerable number of graduates from general lycea who had higher grades than graduates from technical lycea who had been accepted. The situation had generated a good deal of public discussion and had certainly affected the attitude towards vocational education of both parents and pupils.

The *Luxembourg Delegation* asked for information about the value of the different school-leaving certificates. Were those of the vocational lycea equivalent to those from the general education lycea? They wished to know how much time was spent on general studies by pupils in the vocational lycea. If not a great deal of time was spent on them, how could the pupils follow university courses? Were they only admitted to scientific and technical courses at university or were other options open to them? In short, how equal were the two leaving certificates?

The *Yugoslav Delegation* wished to find out how, in practical terms, the Greek government organised transition from school to working life following on the recent reforms.

The *Spanish Delegation* enquired whether there were private institutions involved in the field of the vocational training in Greece. If so, did they receive State aid?

The *Turkish Delegation* had four questions to put. First, they asked what proportion of the secondary age group entered technical/vocational schools. Next, how were the middle-level skill requirements of industry met? Thirdly, was apprenticeship training thoroughly integrated into the system? Finally, they wanted to hear more about the newly planned university for the training of teachers.

To the question from the Luxembourg Delegation, *Mr. Kontoyiannopoulos* replied that it was now accepted throughout Greece, in the civil service as in the universities, that both school-leaving certificates (general as well as technical/vocational) were equivalent. Selection for universities depended on panhellenic examinations held at the end of the last two years at school and covering the same programme (Latin, ancient Greek, history or mathematics, physics, chemistry) taught at both types of lycea for the same number of hours per week. The only difference was that at the general lyceum attendance at the above courses was compulsory, whereas at the technical lyceum it was optional.

Mr. Karamitsanis added that graduates of technical/vocational lycea were entitled to be candidates for all universities faculties except law, literature and theology. Women participated in secondary technical and vocational education at an average rate of 25 per cent.

The *Yugoslav and Turkish* questions on vocational training and the transition from school to working life brought the following answer from Mr. Paleokrassas. This was indeed easier to promote in theory than in practice. However, progress had been made at the level of compulsory schooling where three new programmes had been introduced into the lower secondary schools. First, a career education programme had been experimented with over the last three years, despite a lack of teachers trained for the work. Information about careers and the decision-making part of career education had been concentrated on. Counselling was not yet possible. Secondly, the previous three years had seen an experimental elementary technology programme in a few schools, which would be expanded to one hundred in the current year. This compulsory programme, adapted to suit Greek conditions from a scheme in the United States, where the nucleus of teachers involved had been sent to be trained, would begin by introducing technical skills, technological problems and the use of basic tools into the curriculum of the first year. Technology, tools, machines, transportation, communications and the fundamentals of energy conservation would be studied in the second year while in the third year the stress would be on industry, with visits to local industrial concerns, and descriptions of their major plans and jobs. The third element in the new programme consisted of cultural activities, based upon the students' own choice and often also visiting industry. Mr. Karamitsanis commented that in addition, a short, accelerated one-year course had been developed to help in the transition from formal education to working life for students who had terminated their studies at all levels. Another measure to that effect was the establishment of three new type three-year technical and vocational schools (in Megalopolis, Volos and Drama) operating according to the dual system, with subsequent teaching in school and practical work in factories through the cooperation of firms.

In reply to the Spanish Delegation's question, *Mr. Karamitsanis* stated that in Greece there were twelve private higher technical schools – ten for electronics and two for shipbuilding. They did not receive direct state aid but their students received a state grant amounting to roughly one third of the school fees.

In answer to the first query of the *Turkish Delegation, Mr. Karamitsanis* stated that the percentage of secondary technical/vocational students had risen in 1980-81 to 26 per cent, having in the previous year (1979-80) been 22 per cent. As for the other parts of their enquiry, the instruction given in secondary technical/vocational education aimed at preparing foremen (graduates of technical/vocational lycea) and craftsmen (technical/vocational schools). The students did not emerge from the schools fully specialised but having sufficient general knowledge (mathematics, chemistry, physics, etc.) and broad technical knowledge in some sector (mechanics, electricity, accounting, etc.) to enable them to find their level in industry and to learn a specialisation while on the job. This was preferred to the dangers of premature specialisation, leading to rigidity in the face of technological change.

Mr. Sakellaridis added that the students of KATEEs had the option to transfer to the technical universities.

Question 20

Is there any intention to increase the amount of funds available for vocational and technical education?

Mr. Karamitsanis stated that a new five-year plan for the development of technical/vocational education from 1981 to 1985 had already been approved. It would make available the sum of 13 840 million drs. to be spent, in particular, on building and equipping 11 KATEEs (3 220 million drs.), on buying the necessary land to construct 12 KETEs (centres for secondary technical and vocational education) (700 million drs.), on completing 22 KETEs already in progress (1 300 million drs.) and on building and equipping 66 new KETEs (8 620 million drs.). The plan meant that by the end of 1985 they would have 16 KATEEs and 127 KETEs, all fully staffed, equipped and housed in their own premises. Their geographical distribution would depend on the density of school population and it was planned to provide at least one KETE for each nomarchy and one KATEE for each major region – i.e. Thessaly, Epirus, Thrace, etc. It was the government's belief that this infrastructure would fully cater for the needs of the student population, estimated to have reached 55 000 new entrants per year in the KETEs and 13 000 in the KATEEs by the academic year 1985-86. The appropriate action to acquire suitable staff would also be taken as a matter of course.

Question 21

The weakness of the non-university sector of post-secondary education has in the past discouraged good students from applying for admission and thereby contributed to the scarcity of professional and technical skills in the labour force. Are the authorities satisfied with the present size and variety of this sector? What plans exist for its further expansion and development?

Question 22

How much importance is attached to the role of the KATEEs in post-secondary education, particularly in catering for the products of the technical/vocational lycea? Do plans exist for their expansion and overall development?

Mr. Karamitsanis referred to the data already supplied on the future development of KATEEs. When the time came, it was planned that prospective students should have a wide range of choice between specialisations, which would depend to some extent upon the needs of the area served by the KATEE in question. All this was foreseen in the five-year plan. Moreover, the first implementation of the new selection system for higher education had suggested that future standards would be higher than those of the past.

This year's supplementary reforms, in laying down that 52 per cent of KATEE entrants should come from the technical/vocational lycea (32 per cent) or from the old technical/vocational schools (20 per cent), had given a considerable fillip to the technical/vocational lycea.

IV

FUTURE PRIORITIES AND FORWARD EVALUATION

Introducing the fourth and last set of questions *Miss Browne* said that the participants had moved across the whole territory of Greek education with the exception of the universities, which were outside the examiners' remit, and teacher training, which they were about to discuss. There remained the probing question: how did the Greek authorities know that they had acted correctly, given that there was always a political answer which might differ from the educational one but that the art of the game was to try to get the right educational answer coincidental with the politically aceptable one.

On *evaluation*, Miss Browne asked for more details of the tools used by the inspectors to arrive at their conclusions in their three-monthly meetings. She hoped also that the Greek Delegation would be able to develop their ideas on *the role of research* and in particular on the way in which Greece was able to keep abreast of international developments. The examiners had met many Greeks who had studied abroad, though they had gained the impression that motives had been personal rather than national. Other Greeks even now were taking part in schemes in foreign countries. How well was the Greek education system geared to make best use of these people when they returned to Greece?

Question 23

Several OECD countries, including Greece, have highly centralised education systems. There is a trend in some of these countries, however, to devolve some decision-making and managerial powers on local communities. Do the Greek authorities envisage any decentralisation of the education system within the foreseeable future?

Mr. Kontoyiannopoulos said it was true that Greece had a centralised system. Free instruction at all levels presupposed a certain amount of centralisation. Moreover, in a period of reform and transition, centralisation facilitated change. It was, in any case, the government's intention to encourage decentralisation of educational administration in so far as the decentralisation taking place simultaneously in other parts of the administration would allow. In this direction they had divided the country into educational regions and intended to transfer managerial functions to the regional level wherever possible.

Question 24

Do the authorities have any specific plans for widening public discussion of educational issues and problems? For example, by involving all the main interest groups, both inside and outside the education sector, in the process of educational reform.

Mr. Kontoyiannopoulos explained that, during the last five years the question of education had aroused considerable interest and generated much discussion. Before taking any important decision, the government sought and appraised the views of all interested social groups – teachers, students, parents, employers and employees. It was with their sanction that the reforms had been drawn up. For the study of technical/vocational questions, a formal institution had been set up, namely the Consultative Council for Technical/Vocational Training. A similar organisation, the Council for Higher Education, was also envisaged to carry out the intentions of the law on higher education.

Question 25

What instruments are used for monitoring the effectiveness of the education system? Are any measures under consideration for strengthening the evaluation process?

Mr. Sakellaridis said that the efficient functioning of the education system was ensured by the appropriate organs of the Ministry of Education. Thus general and technical/vocational training are the concern of the Centre for Educational Research and In-service Training of Teachers (KEME). Inspectors at all levels, the principals of the KATEEs and of the teacher training colleges and the Rectors of the universities all meet regularly to evaluate educational proposals and to consider the conclusions arrived at by the various enquiries. Eventual policy decisions are taken on the basis of all these data by the competent organs of the Ministry of Education.

Question 26

What importance do the authorities attach to the role of research and development in the formulation of education policy. Are they satisfied with the present level and scope of research and policy analysis or do they intend to modify and develop the existing machinery?

Mr. Kontoyiannopoulos stressed that the government attached considerable importance to research on education. Not only was KEME provided with a special Research Section but within the Ministry of Education a Directorate had been set up to cover planning, information and audio-visual aids, as well as a special Directorate for the Applications of Curricula and Research. Research on educational matters loomed large in national research programmes established annually by the Ministry of Coordination. It had, however, to be stressed that it was only during the last five years that research in this institutional form had existed in Greece and that they were perfectly aware that further efforts to improve the situation quantitatively and qualitatively were required.

Mr. Sakellaridis added that the government considered educational research an issue of great importance. In fact, it was for this reason that it had created the Centre for Educational Research and In-service Training of Teachers (KEME). Educational research was one of the most important functions of KEME. On the other hand, each year the Ministry of Co-ordination prepared at the national level a plan for research projects in which educational research played a very important part. According to this plan, all interested parties, KEME, the universities, institutes, and individuals could submit proposals to be financed.

KEME advanced research concerning the new education system, especially studies in the two final years of the lyceum and the system of selection for higher education. The new system of selection had just been implemented and KEME was now in the process of researching and evaluating its effectiveness. The old system of selection had been considered inadequate and unjust since it required separate examinations for each field of university study. It had been modified and become a centrally administered examination in 1964. Now they had provided that the upper secondary education system was in charge of selection for higher education. The research project for the evaluation of the new system of selection was therefore of major importance at this point. Besides that, KEME was continuously doing research on educational problems in collaboration with other scientists and researchers, the universities and soon.

Question 27

To what extent does Greece monitor educational development in other countries and how is information about such developments disseminated throughout the education system and fed into Greece's policy thinking and practice in education?

Before answering this question, *Mr. Paleokrassas* provided supplementary information concerning the existence of a mechanism with which to monitor the effectiveness of the education system. Each year KEME communicated directly with the teachers of vocational education in two ways: through questionnaires and by asking them to meet in their schools in groups according to their special subject (mathematicians, physicists,mechanical engineers, etc.) for the purpose of discussing the effectiveness of the textbooks and the curriculum content. The minutes of these meetings were then sent to KEME.

He also supplemented the answer given by the Minister regarding the role of research in the formulation of educational policy, describing how, before introducing the two new reform programmes into the gymnasia (careers guidance and elementary technology) they had applied experimental pilot programmes in ten gymnasia situated at various locations for the technology programme and in some thirty gymnasia for the careers guidance programme. These pilot programmes had been evaluated in the field for three years before being finalised in terms of curricula.

As for Question 27 he believed that the very review meeting was a good example of how Greece used educational developments in other countries to enrich their policy thinking. In addition to its participation in the OECD's Education Committee and CERI, Greece participated in various educational activities at UNESCO and the Council of Europe. Starting from January 1981, it would also participate in the Education Committee of the European Economic Community. All these activities were being co-ordinated by the Ministry's Directorate for International Educational Relations. Educational developments in other countries were also being fed into Greek educational thinking and practice through various staff development programmes abroad, financed by the Greek government and by international organisations. One such scheme now in progress provided for the further training of two hundred KATEE professors in England, Germany, France and Italy. This programme was being financed by UNESCO. Special teams of teachers had also been sent to France, England and the United States to study developments in these countries of programmes concerned with careers guidance, elementary technology in general education and educational television.

Question 28

There seems to be widespread agreement in Greece that the frontisteria *should disappear and yet they continue to flourish. Have the authorities any plans to eliminate the need for students to attend these courses?*

Mr. Kontoyiannopoulos replied that the rise of the *frontisteria* had mainly been due to the old system of admission to institutions of higher learning. The new system of selection by national examination brought into being at the wish of interested social groups, constituted a great step forward and presented the following advantages:

1. Pupils were examined in subjects actually taught in all lycea during that particular year. Under the old system questions might be set on subjects which might have been taught at any time during all the years spent at secondary school.
2. Pupils were judged acording to the results they obtained during their last two years at the lycea and not, as formerly, by a competitive examination lasting a few days. The 'chance factor' was pretty well eliminated since the standards reached in the two last lyceum years in specific subjects and in the respective mean grades were also taken into consideration and it was possible to take half the subjects again so that an overall estimate of the general standard of a pupil's work might be arrived at.
3. Under the new system, the training and preparation of students for further study remained in the hands of their own teachers and took place in their own schools.
4. The new system constituted an attack on the *frontisteria* which could no longer offer, as formerly, a 'recipe for success'.Nor could they any longer teach subjects which ought to have been taught at school. On the contrary, they exhausted the pupils and distracted them from work carried out more effectively at school.

It had to be admitted, however, that the facts did not yet bear out this last theoretical advantage. Pupils continued to go to the *frontisteria* but it was believed that the phenomenon would prove to be only temporary. Pupils and parents had not yet learned to have confidence in the state schools. Eventually they would be sure to come round to the belief that it was the work done at school that ensured success and that the *frontisteria* were superfluous.

Question 29

How do the authorities view the role of private schools in education?

Mr. Kontoyiannopoulos said that it was the government's conviction that the State was under an obligation to respond to the demands of society for a state education system which in quantity and quality should obviate the need for any recourse to private education. In addition, private schools, their quality, curricula, books and teaching staff should be state-monitored. Citizens were free, if they so desired, to enrol their children in private schools, which could continue to exist, provided their standards matched those provided by the State.

Government policy had led to a steady fall in enrolments in private schools as the data presented in the Background Report clearly illustrated. For the school year 1979-80, private school pupils had accounted for the following percentages of the total school population: 10.2 per cent for kindergartens, 6.6 for primary schools, 4.3 for gymnasia, 6.6 for general education lycea, 1.7 for technical lycea and 1.6 for vocational lycea.

Mrs. Polydorides wished to add information concerning research and the impact made by the reforms upon equality of opportunity. In 1976 to 1978, a major research project had been carried out under the direction of Mr. George Psacharopoulos of the London School of Economics and Mr. A. Kazamias of the University of Wisconsin. One of the issues researched had been the selection of students for post-secondary education. A new selection system had been designed, adopted and applied for the first time in 1980. A parallel scheme had been initiated earlier in the year to evaluate the new system and its implications for equality of opportunity.

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There was no doubt of the beneficial effects of the general reforms where equal opportunities for all were concerned. Whereas in 1974-75 only 70 per cent of pupils leaving primary school had gone on to the gymnasium, the proportion was now over 90 in the first year of the reformed system. Similarly, in 1974-75, 52 per cent of students who had finished primary school three years earlier had enrolled in the lyceum; the proportion this year had risen to 70. In the case of post-secondary education (university and higher education) and due to the fact that there was a *numerus clausus* the estimate of the effect of the new selection system on equality of opportunity had to be considered in different ways.

The data which followed were the initial results of the evaluation project previously mentioned and carried out at KEME. The first factor to consider when examining equality of opportunity was usually sex. The distribution of applicants for post-secondary education in 1979, the last year during which the old system of selection had applied, was:

women 50 per cent
men 50 per cent

and the distribution of success *in the universities* was:

women 45.8 per cent
men 54.2 per cent

The new selection system was applied for the first time in 1980 and it definitely encouraged more women to participate. Thus, the distribution of applicants by sex in 1980 was:

women 54.1 per cent
men 45.9 per cent

and the distribution of successes *in the universities* was:

women 54.0 per cent
men 46.0 per cent

reflecting exactly the gender distribution of *the total number of applicants.*

It could be seen that the rate of success of men and women had reversed as a result of the new selection system and had come to reflect exactly the distribution of applicants. Similar rates of success by sex appeared in the KATEEs. It was unfortunate that at this point they did not have the distribution of successes by father's occupation but, as was known from data in previous years and OECD publications, Greece was performing well in this respect compared to other OECD countries. It was more interesting to look at the successes in the most selective university faculties which were:

a) the faculties of philosophy and the faculties of law in Athens and Salonika, in the humanities-social science group, and
b) the faculties of medicine and the National Technical University of Athens, in the science and technology group.

The distribution of successes in these highly selective faculties by groupings of upper secondary education schools showed that:

i) the public pilot schools were far ahead of all other schools and in fact the rate of success of their students was three times higher than the rate of success of the "good private schools" of Athens;
ii) the "good private schools" of Athens had rates of success closer to those of the public schools in the large cities of the country (excluding the three major cities, Athens, Salonika and Patras).

The evaluation of the Panhellenic Examination was still at an early stage and there were not more comprehensive results. Still it was fair to note a few numbers on *frontisteria* attendance shown by some tentative data:

Mean duration of total attendance 6 months
Hours per week average 4½ hours

In simple numbers, the average upper secondary education student attended
approximately: 1 920 hours of schooling
and 108 hours of *frontisteria*
during the last two years of upper secondary education.

The above data might be a starting point to reconsider the importance of cramming schools which had been termed as a "parallel system", the actual role of the "good private schools" of Athens, and, of course, the status of women in the Greek higher education system after the reform.

Question 30

What will be the main concerns of teacher training policy in the eighties? Do the authorities consider that the present draft reforms, when implemented, will provide the numbers and above all the quality of teachers required?

Question 31

The continuing or in-service training of teachers appears to be still underdeveloped in Greece, despite some recent improvements. Do the authorities envisage adopting a more positive policy towards in-service training and, if so, will they have the means to implement it?

Mr. Sakellaridis stated that the problem of basic and in-service training was already in Greece the object of very wide-ranging study and discussion. The government was moving towards the setting up of a Pedagogical University (a University of Educational Sciences) which would provide four-year training courses for women kindergarten teachers, primary school teachers and teachers involved in special education. It was to be hoped that this government project, which would be put into operation when all the requisite conditions for its approval and practical application had been met, would overcome, both from the qualitative and the quantitative point of view, the problem of basic training for primary school teachers.

In parallel, for in-service training, there existed training colleges for primary and secondary school teachers (SELDE). Their courses lasted a year and could be attended in any one of the country's ten major towns. The instruction of teachers engaged in vocational training was catered for by the college for the training of Teachers of Technical and Vocational mentioned in the Examiners' Report. At present, KEME was engaged in a study aimed at the reorganisation and modernisation of the whole system of in-service training for teachers.

Part Three

EDUCATIONAL REFORM POLICIES IN GREECE

Summary of the Background Report
prepared by
the Greek Ministry of Education and Religions

I

THE STRUCTURE OF THE EDUCATION SYSTEM, THE SCHOOLS AND THE CURRICULUM*: BEFORE AND AFTER THE REFORMS

1. GENERAL EDUCATION (SCHOOLING)

Compared to other European countries the organisational pattern of the Greek system of general education (public or state and private) before the recent reforms (1976-1977) looked rather simple. It consisted of six years of compulsory elementary education (ages 5½ to 11½) and six years of selective secondary (ages 11½ to 17½). The secondary level, given in the gymnasium, was organised into two three-year successive programmes of study. Admission into the secondary level was contingent upon the completion of the elementary level and the passing of entrance examinations. Continuation into the six-year gymnasium depended on the regular methods of promotion from class to class. The upper classes of the gymnasium provided some options, e.g., (*a*) the "theoretical" with an emphasis on humanistic education (mostly classical and literary subjects), (*b*) the "practical" (scientific) with an emphasis towards mathematics and the natural sciences. In addition, there existed a small number of night "high schools" for working students over 14 years of age. Attendance in such schools lasted for at least 7 years.

Students who had successfully completed the six-year gymnasium obtained a school-leaving certificate *(apolyterion)* which entitled them to sit for the annual entrance examinations for university and non-university level post-secondary institutions (higher education). A constitutional provision and two important pieces of legislation (Law 309 and Law 576) enacted in 1976 and 1977 altered the organisational and institutional framework of the school system. Compulsory education has been extended from six to nine years (ages 5½ to 14½) encompassing the six-year primary (elementary) stage and a three-year lower secondary stage, the latter to be known as gymnasium. Examinations from the elementary school to the gymnasium have been abolished. The secondary level has been divided into two self-contained cycles of study, namely, the lower to be given in the unselective gymnasium and the upper to be provided in the selective and diversified three-year lyceum (ages 15+).

There are two main types of lycea: the general and the technical/vocational. Entrance into them is based on the passing of examinations given at the completion of the gymnasium. As from 1980-81, admission into the universities will be based on a composite index of achievement consisting of the results of national examinations given in certain subjects in the second and third classes of the lyceum, the grade point average on the lyceum leaving certificate, and the grades in the second and third lyceum classes. This method will have replaced the much-criticised previous entrance examinations into tertiary education.

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* For detailed statistical information illustrating the evidence presented in this summary see: *Educational Policy and Planning: Educational Reform Policies in Greece*, especially Part Two, OECD, Paris, 1980, pp. 46-139.

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Types of schools and curriculum

Kindergarten (Nepiagogeion)

Before registering for the elementary school, a Greek child can attend a kindergarten, which is not compulsory. The role of this pre-school establishment has been mainly one of socialisation viz., the cultivation of good personal and social habits and the adjustment of children "to their physical and social environment".

Elementary School (Demotiko scholeio)

In Greece the aims of this first level of formal education have always included*:

- socialisation into certain national, religious and moral values,
- training in the 3 R's (reading, writing and computational skills), and
- development of oral and written linguistic skills.

During the period of the military junta (1967-1974) there was an exaggerated emphasis on traditional nationalistic and religious values as well as on a rather conformist and passive code of behaviour.

Law 309/1976, which supplanted previous legislation, defined the purpose of the elementary school as follows:

"... to lay the foundation of the education of children of primary school age". More specifically:

a) to enrich their experience;
b) to arouse and develop their physical and intellectual abilities;
c) to introduce them into the knowledge of the physical and historical world;
d) to cultivate their powers of observation, thinking and sensitivity;
e) to awaken their moral conscience; and
f) to lay the foundations of their religious, national and humanistic education.**

The curriculum of the elementary school, as specified in Presidential Decree 1034/1977, consists of religion, Greek language, history, geography, study of the environment, arithmetic,arts and crafts, music, citizenship, chemistry and physics. The intellectual and moral orientation as well as the pedagogical climate of the Greek elementary school, as it emerges from reports, legislation and other policy statements, emphasizes socialisation into traditional cultural values and the liberal-democratic, socio-political and economic order. At the same time, this first level of education seeks to transmit, through the teacher, a body of established knowledge to unformed pupils.

The aspect of the curriculum with a long-standing background of discord that ramified into the political and intellectual life of the country was the form of the Greek language that was to be used in teaching and in textbooks. The so-called "language question" was a major subject of concern at all periods of educational reform. The 1964 Act (Legislative Decree 4379/1964) specified that the popular language (*demotike*) would be the language of teaching and textbooks in the elementary schools. But, as a result of legislation during the seven-year dictatorship, the demotike was taught only in grades 1-4 in the elementary school, while a "simplified *katharevousa*" (*apli katharevousa*) was used in the upper two elementary grades. (See Decree Law 651/1970, Article 25). The junta, in short, re-established the katharevousa to its previous privileged state. However, the new law has reintroduced the demotike as the sole language in the elementary school.

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* See Kingdom of Greece, *Government Gazette*, No. 163, September 25, 1967 (in Greek). Hereafter cited as Law 129/1967.

** Law 309/1976, Article II.

One characteristic of elementary education with important pedagogical, economic and social consequences has been its structural diversity regarding the physical and human environment of classroom organisation. Aside from differences that existed before 1974 in physical facilities between schools in urban and rural areas and between schools in different parts of the cities (notably the Greater Athens area), disparities in the general environment for learning occur in the four different categories (types) of elementary schools. These types, which are known by the number of classrooms and/or teachers they have, are:

- *monotaxia* (one-room schools with one teacher for all classes);
- *ditaxia* (two-room schools with two teachers for all classes);
- *tritaxia* (three-room schools with three teachers for all classes; and
- *polytaxia* (four- to six-room schools, with four to six teachers).

A major concern of successive governments has been to reduce the large number of one-room schools. Still, in 1975-1976 there were 3 498 such establishments, which represented 38 per cent of the total number of elementary schools (8 962). These schools served a total of 65 283 students representing only 7.6 per cent of the total number of elementary school students (862 648).

Secondary Education

Until the recent changes secondary education was not compulsory. General secondary schooling was provided in state and private six-year selective gymnasia, following completion of the six-year elementary school and the passing of an entrance examination. The proportion of elementary school graduates who continued into the gymnasia rose steadily in the 1950s and the 1960s and just before the recent reforms stood at approximately 83 per cent.

We have already referred to the intellectual orientation of the six-year gymnasium (its strong classical and literary humanistic emphasis), its central position in the education system (it was the institution par excellence for the provision of general culture or liberal education, and the gateway to the universities), and its social as well as political significance (it controlled, so to speak, access into high status occupations). As also noted above, the gymnasium had often been an arena of controversy, and a subject of reform. Some efforts, admittedly rather modest and faint-hearted, were made to alter its monolithic structure and traditional curriculum. Yet the gymnasium proved to be too strongly embedded in the Greek educational culture and the social system. Moreover, the "anti-modern" educational ideas and policies of the junta were a serious setback in the push towards modernisation. According to the junta Law 129, certain by then rather hackneyed ideological aspects of the gymnasium (e.g., emphasis on classical humanism, the values of the twin traditions of Hellenism and Christianity, etc.) were recast in chauvinistic hyperboles and pompous formalities (see, for example, Article 8).

a) The lower secondary level: the new gymnasium

The lower cycle of secondary schooling has always been envisaged primarily to be a continuation of general education as defined by the Greek and Christian cultural traditions. Its role, like that of elementary education, was initiation (socialisation) into an established set of beliefs, values and attitudes of mind. At the same time it was the preparatory stage for the more selective, specialised and differentiated upper cycle. The curriculum of the lower secondary cycle included religion, ancient and modern Greek, a modern foreign language, history, geography, mathematics, physics, music, physical education, handicrafts and home economics for girls. About half of the weekly hours was allotted to the humanities (religion, Greek, foreign language, history and music), about one-third to religion and Greek, and about 20 per cent to ancient Greek alone. The reform of 1976 replaced the study of ancient Greek literature, which was carried out in the original, by "accepted translations in Modern Greek". In this way, it is believed that the students will be better able "to approach the spirit of the ancient texts"; they will "love the ancient authors and seek out to study them on their own"; they will be attached to and illuminated by the light of the Greek humanistic tradition; and they will "transform into their guiding light the perennial values which they (the ancient texts) contain".*

The 1976 Act (Law 309) reformulated the aims of the new three-year gymnasium as follows:

> ... to complete and consolidate the general education of the adolescents. Specifically: to train them in the correct and precise expression of their thoughts and feelings and in the observation and analysis of the phenomena of the physical and social world; to acquaint them briefly with the history and the most significant intellectual acquisitions of the Greek, the European and more generally the human civilisation; to help them to become conscious of their abilities and inclinations; to sharpen their moral judgment; to develop their religious and national conscience; and to inspire in them beliefs consonant with the principles of the democratic policy of the country. (Law 309/1976, Article 26).

Law 309 specified five general curriculum areas (cycles) from which subjects were to be selected, viz., the theological, the literary/philological, the physico-mathematical, the artistic and the technological. It also provided that "elements of the democratic organisation of the State, and educational and vocational orientation" be included in the programme of studies (Law 309/1976, Article 28).

b) The upper secondary level: the lyceum

The stated aims of the upper cycle of secondary education have always included the provision of a more advanced general culture as well as a wider and deeper understanding of the Hellenic (ancient, medieval and modern) and Christian Orthodox cultural traditions. It should be further noted that at all times one of the main functions of the six-year gymnasium and *pari passu* of its upper cycle has been to prepare students for tertiary education. This level of schooling was perceived to be for the ablest students (selected on the basis of cognitive achievement in national entrance examinations) destined to be the future leaders of society. In contrast, Article 29 of Law 309/1976 defines the aim of the upper level, i.e., the lyceum, as follows:

> "... to provide an education that is richer and broader than that of the gymnasium for those youth who are destined for higher level education or for higher demanding occupations. This type of education includes: a more systematic cultivation of the oral and written word; a more profound study of the national literature and history and of world history, as well as of the cultural monuments, especially of the history of European civilisation; the development of critical thinking and imagination; the more complete study of the physical and social world; the strengthening of religious and national beliefs; and a more substantial knowledge of the principles of the democratic system of government of the country. Finally, according to the same law, the type of education provided in the lyceum seeks "to enlighten the mind and thus create free and responsible characters".

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* See Ministry of National Education and Religions, Centre fo Educational Research and In-Service Training of Teachers, *Suggestions on the Ancient Greek Literature in Translation* (Athens: National Printing Office, 1976), p. 17. Hereafter cited as *Suggestions.*

As with the gymnasium, the recent law specified certain curriculum areas from which the programme of studies in the lyceum would be drawn. These were: the theological, the literary/philological, the physico-mathematical and the artistic. At the same time elements of the democratic organisation of the state were to be included.

2. TECHNICAL AND VOCATIONAL EDUCATION

In the last two decades technical and vocational education has been a subject of concern, controversy and some administrative rearrangements. In the main, however, there was little substantive change in the technical educational policy. Notwithstanding the decrees of 1959 (Nos. 3971 and 3973) technical and vocational education did not grow substantially, while an initial draft of a technical education bill to supplement the 1964 reforms never reached Parliament.

The reasons for this inertia and the slow pace of reform in the technical and vocational area are as numerous as they are complex. By tradition, the Greek concept of "paideia" (culture, education) and knowledge as expressed in official reports and policy statements as well as by influential individuals and interest groups has mostly been understood and defined in intellectualistic, ethical, cultural and humanistic terms. One does not have to evoke the authority of Aristotle who differentiated between liberal and "banausic" studies to lend credence to this observation. In 1958, the prestigious Committee on Education reaffirmed that the humanistic ideal, inspired by the Hellenic and Christian spirit, should constitute the foundation of Greek education. It continued:

> "... (its education's) purpose will be to give to society young men and women who have free convictions, are inspired by high ideals, are faithful to God and country (Fatherland-patris), love their neighbour, and, in their own person as in that of others, honour man as the crowning point of creation".

"Motivated by this noble ideal", the Committee went on, "the Greek school should give a prominent place in its curriculum to the benefits of 'classical' education".*

The structure of the education system, especially the centrality of the six-year general gymnasium, and the mechanisms of selection into university level institutions (AEIs), were not particularly conducive to the healthy growth of educational alternatives. The existing educational arrangements, taken in conjunction with the reward system in the society (in terms of prestige, status and occupational benefits), did not provide sufficient incentives for parents or students to aspire towards technical/vocational schools. Consequently, such schools became the refuge mostly of those who could not "make it" in the general branch.

Basically technical and vocational education in Greece began through private initiative, which, until the current reforms, accounted for most of the provision in that type of education. Even in the public sector technical and vocational education were largely the responsibility of ministries other than the Ministry of Education and Religions. The overall private effort accounted for approximately 54 per cent of the students in the lower and middle technical/vocational schools in 1974-75.

The organisation of technical/vocational education prior to Law 576/1977 was governed by the provisions of Legislative Decrees 3971 and 580, passed in 1959 and 1970 respectively. There were three levels of schools – lower, middle (secondary) and higher – each of which included a variety of specialities. Law 576 "On the Organisation and Administration of Secondary and Higher Vocational and Technical Education" altered this organisational pattern.

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* *Porismata Epitropes Paideias, June 24, 1957-January 10, 1958,* Athens, 1958, pp. 20-23.

Lower technical/vocational schools

Students were admitted to these schools, without entrance examinations, after successful completion of the elementary school. They were schools for students who either did not demonstrate the achievement necessary for continuation into the *gymnasia* or, for several other reasons, did not want to proceed further in the general system. Generally the course lasted for three or four years (ages 12-14 or 15) and included several areas of vocational preparation (e.g., decorative arts, printers, radio-technicians, plumbers, builders, cooks, agriculturalists, assistant nurses, etc.). In 1974-1975, 62 967 students were attending 635 such establishments. Of these, 61 191 were in lower technical schools and only 1 776 in lower vocational ones (i.e. agricultural schools, schools of home economics, and schools of social services). As might be expected, the heaviest concentration of such schools and students was in the Athens-Piraeus and Salonica areas (40 981 students representing 65 per cent of the total).

According to the recent reforms, the lower vocational schools are gradually to be phased out by 1982-83.

Secondary technical/vocational schools

In the past, secondary technical/vocational schools trained middle-level professionals in commerce and industry, e.g., electricians, radio and television technicians,mechanics, draftsmen, rural surveyors, maritime mechanics,accountants, foremen, medical technicians and the like. In addition, they prepared students for the priesthood and for agricultural occupations. Those who attended these institutions had completed their lower-level counterparts, or the lower stage of the gymnasia, or they had finished the six-year gymnasium itself. No entrance examinations were required. The course of study generally lasted for three or four years.

In 1974-75, 71 150 students were attending 780 secondary technical and vocational schools. Of these, 30 995, i.e. 43.6 per cent, were in state schools and the rest (56.4 per cent) in private ones. As with thelower level, secondary technical schools were proportionately more numerous and registered 81.6 per cent of the students.

With the new system, these schools are abolished and in their place a new type of secondary technical/vocational education is established, the other being the technical lycea, described below. Attendance in the new day technical/vocational schools is of one or two years' duration (2 to 4 semesters) depending on the area of specialisation. Students completing the general gymnasium are admitted without entrance examinations, while those who finish the course may, after examinations, enter the second year of the technical lycea. The purpose of these schools, as laid out in Law 576, is:

"... to consolidate the general education acquired in the gymnasium, and mainly to develop the knowledge and skills which will enable the students to follow a career in a specific technical or vocational field" (Article 6).

Technical/vocational lycea

One of the most important innovations in the structure and orientation of technical and vocational education, indeed of the education system as a whole, is the establishment of the technical/vocational lycea. It has also been a highly controversial one, as shown later in this report.

These lycea are the technical/vocational counterparts of the general lycea described above. As such they are three-year selective institutions (admission into them is based on entrance examination), and they lead to tertiary institutions (higher and highest). For admission into university level institutions (AEIs) technical lyceum

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graduates must take the same additional subjects as the students in the general lyceum, group B. At the same time, however, they prepare directly for employment. Their stated purpose is: ... to provide a richer and broader general education than that of the gymnasium, and mainly to transmit to the students the necessary technical and vocational knowledge and to develop their aptitudes (skills) so that, when they graduate, they will be able to be employed successfully in a specific technical or vocational field (Law 576/1977, Article 9).

Other types of vocational education

Vocational training is also provided by public agencies as well as by public and private enterprises, e.g., the Organisation for Manpower Employment (CAED), the Ministry of Mercantile Marine, the Ministry of Social Services, the Vocational School of Tourism, the Public Electricity Company (AEH), the Greek Telecommunications Organisation (OTE), the Post Office (ELTA), the large banks and big industries. These agencies provide training combined with apprenticeship programmes which are designed to serve the special needs of the companies. The programmes last from 6 months to 3 years. Smaller companies also, which want to upgrade the quality of their personnel in anticipation of the demands that the country's entry into the European Economic Community will make upon them, have been engaged in similar training activities.

Government policy has been to encourage this type of vocational education. In many instances it has provided financial and technical assistance for the better organisation of the various training programmes.

Lastly, mention should be made of formal apprenticeship programmes (schools) which in 1978-79 numbered over 400 serving over 40 000 young people between the ages of 14 and 17.

Higher Technical/Vocational Schools and Centres for Higher Technical Education (KATEEs)

The technical/vocational branch of education was capped by the higher technical schools, which included: *a*) Centres for Higher Technical Education *b*) the Sivitanideios School of Engineering Technologists and *c*) private establishments for the training of electronics specialists and shipbuilders.

Holders of school-leaving certificates from secondary technical/vocational schools or six-year gymnasium were admitted after passing entrance examinations. In 1974-75 there were 7 890 students enrolled in 295 higher technical schools, 5 158 of whom were in state-operated institutions.

KATEEs

Of the higher technical schools, the KATEEs have become the most significant since their operation in 1974 and are worthy of further comment. The establishment of KATEEs was authorized by Legislative Decree 652 issued in 1970. In 1974-75 the first students were admitted, after entrance examinations, in the KATEEs of Athens, Salonica, Patras, Larissa and Heraklion (Crete). In the original Law, the purpose of KATEEs was stated as "the education (training) of higher level technicians (intermediate between university and middle level) who will contribute to the development of the national economy". Such education would include "theoretical study, laboratory training as well as on-the-job training under the supervision of the school". The length of study for full-time students would vary from one to three years and the areas of training would include engineering, food technology, livestock production, business administration, nursing, social work and other "health services", tourism, etc., in respective schools (e.g., schools of engineering, technology, agriculture, business administration, health services and graphic arts).

In 1976-77 more KATEEs (renamed Centres for Higher Technical and Vocational Education) were set up in Kozane, Piraeus, Florina and Seres. In 1977, 12 963 students were attending the existing KATEEs a figure which shows a tremendous increase since 1974-75 when they first opened. (In that year, 2 246 students were registered).

3. TERTIARY EDUCATION

The Greek system distinguishes two types of tertiary (post-secondary) education, which are also known by two different terms, namely "higher" and "highest" education. "Highest" education refers to the universities, the National Metsovion Polytechneion (also known as the National Technical University) and other institutions which enjoy university status. In abbreviated form "highest" institutions are known as AEIs. "Higher" education denotes non-university post-secondary educational establishments which include pedagogical academies, higher technical schools or centres i.e. KATEEs and other similar institutions.

The two types of education are differentiated in terms of length of study, in certain cases prior preparation and entrance requirements, and quality of teaching staff. These characteristics, plus (*a*) the differential occupational rewards that accrue from attendance at the two types, and (*b*) the traditional conception of Greek "paideia", have contributed to making AEIs enjoy higher prestige than the other tertiary institutions. Not surprisingly they are also more sought after by parents and students.

AEIs — Highest (university-level) education

In 1974, when civilian rule was restored, there were 11 AEIs: 5 universities (Athens, Salonica, Patras, Ioannina and the National Technical University), and 6 university-level schools (Piraeus and Salonica Schools of Industrial Studies, the Athens School of Agricultural Studies, the School of Economic and Commercial Studies, the School of Fine Arts, and the Panteios School of Political Science. Since then, two more universities – at Thrace and Crete – and one technical university – Crete – have been planned, and are currently functioning in a limited capacity.

Constitutionally, AEIs have "legal independence" or are "self-administered" but are under the supervision of the State, through its Ministry of National Education and Religions. Thus they are public establishments, supported by the State, and subject to public law. Their internal governance, the number of the various ranks of the teaching staff (professors, lecturers, assistants, etc.) and the terms of their appointment, the system of examinations (entrance, yearly, and final) and grading, the method of distributing textbooks and other teaching materials to the students, the student unions, the disciplinary codes, etc., are all regulated by legislative decrees after proposals submitted by AEIs.

As with other types and levels of education, several aspects of AEIs (governance, entrance examinations, quality of teaching, size, etc.) have recently been the subject of public criticism and controversy.

For several reasons (e.g., educational reformism in the light of economic development plans, Greece's impending entry into the European Economic Community, increased demand for education, and internal social conflicts and pressures), since 1974 government has responded by appointing study groups and committees to evaluate AEIs and the entire system of tertiary education and to come up with recommendations for change. The upshot of these efforts was Law 815 "On the regulation of subjects (themes) pertaining to the organisation and functioning (operation) of highest educational institutions (AEIs)" which entered the educational statutes in 1978. At the same time, plans are afoot for the reorganisation of the pedagogical academies.

Law 815 climaxed a reformist university atmosphere which was characterised by intensive activity in government, political and university circles.

Higher (non-university-level) institutions

As noted above, "higher" (anotera) educational institutions are distinguished from the universities and other "highest" (anotata) establishments. The former include: (*a*) the higher technical and vocational schools, i.e. the KATEEs, which were described earlier, (*b*) the teacher-training institutions (Pedagogical Academies) and SELETE, and (*c*) several other types of schools.

Teacher Training Institutions

a) Pedagogical Academies

Pedagogical academies are two-year institutions preparing teachers for the elementary schools. They admit students who have completed the full secondary school course (previously the six-year gymnasium, currently the lycea), are "physically and psychologically healthy", have "excellent" conduct and pass an entrance examination. Candidates with excellent marks on the school-leaving certificate are exempted from the written part of the entrance examination.

The programme of studies is regulated in detail through legislation and/or decrees which also specify the aims and general content of each subject. There are 14 Pedagogical Academies, with a total enrolment of 2 258 students (1975-76).

The government has already drafted legislation which, among other things, by 1982-83 will extend the course of study, and raise the Pedagogical Academies to the status of university-level institutions (AEIs).

b) Schools for Kindergarten Teachers

Very similar to the Pedagogical Academies in aim, organisation and administration are 4 schools for kindergarten teachers. In 1975-76 these establishments enrolled 1 133 students.

c) Schools for Home Economics and Physical Education

Other types of institutions that are exclusively concerned with the training of teachers for general education are the National Academy for Physical Education in Athens, with its equivalent branch in Salonica, and two Schools of Home Economics.

The graduates of these schools take up positions in secondary schools, not elementary, as the previously-mentioned Academies; the course of study is three years instead of two for the Schools of Home Economics and four for the National Academy for Physical Education which is also known as a "highest" educational institution. Nevertheless, these schools do not enjoy the "autonomy" of university-level institutions, and they are governed by the laws and regulations of "higher" education. In 1975-76, there were 1 013 students enrolled in these schools.

d) SELETE (College for the Training of Technical and Vocational Teachers)

As signified by its title, the purpose of this school is the education and pedagogical training of vocational and technical school teachers. It was established in

1959 (Article 29 of Law 3971/59) and began operating soon after. It is an autonomous establishment under the supervision of the Ministry of Education. Like the KATEEs, the institutional development of SELETE has been facilitated by means of assistance from international organisations, including OECD. In many respects it is a unique establishment and worthy of some additional comment. SELETE consists of three technical education branches:

i) the Pedagogical Technical School (PATES) for graduates of secondary, higher and highest institutions,
ii) the Higher Technical School of Educational Technologists (ASETEM), and
iii) five model schools (one technical lyceum, one vocational lyceum and three technical schools). The course of studies varies according to the branch: six months for the graduates of highest and one year for those of higher institutions, and 4 years for ASETEM.

In addition to special admission examinations for the several branches, all students are subjected to psychological tests carried out through personal interviews.

The programme of studies in PATES and ASETEM includes the following categories of subjects and activities:

- theoretical-philosophical (e.g., philosophy of education, sociology, Greek economy, etc.),
- psychological (e.g., general psychology, industrial psychology, guidance, etc.),
- general and special methods of teaching and school organisation,
- general education (e.g., English, Greek, mathematics, etc.),
- technological and scientific subjects, and
- practical training in schools.

In 1978 there were 2 840 students enrolled in all branches of SELETE, distributed as follows: 481 in PATES, 973 in ASETEM and 1 386 in the model schools.

4. PRIVATE EDUCATION

Parallel to the state system of education there is a network of private schools, institutes, colleges and the like of all levels and types, except university-level institutions. The establishment of private universities is proscribed by the Greek Constitution.

Private general schools are set up, supported and administered by individuals. However, they come under the jurisdiction of the Ministry of Education which supervises them through its district supervisory personnel. Furthermore, in their organisation, curriculum, conduct of examinations, policies of promotion from class to class and graduation and qualifications of teachers, private schools abide by the same rules and regulations as the state-controlled counterparts. The legal and institutional framework as well as the overall status of private schools in the Greek education system has been a special policy concern of the present government. An important measure toward the updating of the laws and regulations affecting this type of education is Law 682 which was enacted in 1977.

Private general education is concentrated mainly in the two metropolitan regions of Athens and Salonica. Enrolments in private primary schools, as a proportion of total enrolments, fell somewhat during the period 1960-77 and stood at 8 per cent in 1976-77. In Athens, however, they dropped sharply from about 29 per cent in 1960-1961 to 19 per cent in 1976-77. At the secondary level, they have remained fairly constant since 1965-66, and they stood at about 12 per cent in 1976-77.

Private schools charge fees, some quite high, while the quality of education they offer has not been carefully assessed. Compared to state schools, private gymnasia have shown lower success rates in the public lyceum examinations, but higher in the first panhellenic examinations which were held this year.

5. FLOW OF STUDENTS AND EDUCATIONAL OPPORTUNITIES

In the last couple of decades there has been a significant increase in the social demand for education, especially at the secondary general and the university levels. To illustrate with some gross figures:

- During the period 1957-1976, secondary general education increased by 196 per cent;
- During the period 1969-1976, secondary technical/vocational education grew by 71 per cent;
- In "highest" education (universities) there was a rise in enrolments of 436 per cent from 1957 to 1976;
- Tertiary technical/vocational education grew by 148 per cent in the period 1966-1975.

There were several factors that contributed to such an expansion. Among them, it can be safely assumed, were the general rise in the educational and living standards of the population, the traditional value which Greeks have attached to education, and the reform efforts for the expansion of education.

Despite the general growth of the educational enterprise, it is quite clear that there was a gradual decrease in enrolments as one moved up the educational ladder, which becomes quite marked at the tertiary level. The progressive selectivity in the Greek system may be gauged from the percentages of students who managed to move upwards from primary schools to universities. Thus, for example, taking as the base the cohort of students who entered primary schools in 1960-61, it was estimated that:

a) Of 100 students who entered the first grade:
  - 95 finished primary school (six grades);
  - 63 entered the seventh grade (the first class of the six-year gymnasium);
  - 32-33 finished the gymnasium (grade 12);
  - 11 were admitted into the universities.

b) The proportion of primary school leavers who entered the gymnasium was 62 per cent.

c) Of those entered the gymnasium, approximately 55 per cent graduated.

d) 35 per cent of gymnasium graduates were admitted into tertiary institutions.

The general conclusion from the above estimates is that a large degree of selection in the Greek education system took place before the student finished the six-year gymnasium. Many entered, but fewer finished. If, however, they reached the end of the secondary general level, the opportunities to continue were greater.

Variations in opportunity existed in different geographic regions of the country. As is the case in other sectors, a higher percentage of students from urban centres, especially from the Athens area, were able to continue their education from primary school to the university. Children from Thrace and the Ionian Islands had less opportunity.

The iron law of educational selection

Selection, as is well known, is influenced by socio-economic factors, the cultural environment of the individual, peer groups, etc. In Greece, all students who succeed in the examinations have the legal right to all levels of education. That is, the basic criterion for participation in the system is achievement, not ascription. With the expansion of compulsory education, selection on the basis of demonstrated achievement will commence after the three-year gymnasium, i.e. after the age of 15. Hence it could be argued that there are no social imparities for purposes of admission into the post-compulsory levels of the system. Yet the Greek system, like all education systems, is not immune to what has come to be referred to as the "iron law of educational selection". Stated rather generally, this has meant that children whose parents belonged to the upper occupational groups, who earned high incomes and who had high levels of education, had comparatively higher levels of achievement than lower socio-economic groups, were proportionally more successful in the examinations and consequently were over-represented in the upper levels of the system[*].

One of the expected consequences of the recent reforms is the democratisation of the system in the structure of opportunities through the extension of compulsory education, changes in the organisation of the curriculum and post-compulsory schooling, and a meritocratic pattern of selection. Before the raising of the school-leaving age (ROSLA) the following social discrepancies were evident:

- 65 000 children between the ages of 11 and 14 were at work (employed, despite the existence of legislation that forbade child labour before the age of 14; 57 per cent of these children were from rural areas.
- About 34 000 primary school graduates entered the labour market and 22 000 lower vocational schools.
- Of those students in the sixth grade (last class of the primary school) who did not want to continue their education in the gymnasium, the vast majority belonged to rural families.[**]

Assuming that more schooling confers individual and social benefits, when ROSLA is fully implemented children who have hitherto been at a disadvantage, especially rural children, will enhance their chances for continuing their education and ultimately for a more rewarding life.

Another reform measure that is anticipated to have beneficial effects on the opportunity structure is the system of electives in the lyceum. This innovation provides the same two options for all lyceum students in the country. This was not the case before. Hence students in smaller lycea will no longer be short-changed. Furthermore, the system of electives in both general and technical lycea will lessen the significance of "frontisteria" (the private cramming schools) which were a financial burden to parents particularly from the provinces.

Still another change which is expected to affect the structure of opportunities is the new system of admission into AEIs, which has supplanted the previous general entrance examinations. The new panhellenic examinations in the elective subjects, plus composition, at the end of the second and third classes of the lyceum will be on the material actually taught at school, not on what had been *a priori* specified that should be taught, and will provide a wider base for assessing one's achievement. They will thus be more efficient in selecting the meritorious from all walks of life and regions.

Finally, it is expected that the new post-compulsory education arrangements (the bifurcation into general and technical lycea and the technical/vocational schools) will result in a more balanced distribution in the flow of students in the different types of education, and it will increase the employment opportunities of secondary school graduates.

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[*] See also G. Psacharopoulos and A. Kazamias, *Post-Secondary Education Development Study*, unpublished report, Athen 1978, pp. 175 ff. and Appendix D (in Greek).

[**] See Th. Tassios, A. Kazamias and A. Paterakis, *Nine-Year Compulsory Education*, Scientific Publications, National Technical University, Athens, 1976, and E. Panayiotou, *Individual Demand for Education in the Gymnasium*, Athens: Ministry of National Education and Religions, May 1978 (in Greek).

To a degree more or less, the iron law of educational selection holds true in most countries of the world, especially as it pertains to access into the universities. This has been repeatedly brought out by international organisations like UNESCO and OECD, and by general individual researchers.[*] Greece is no exception. Certain occupational groups, e.g., administrative and managerial and free professional, are over-represented in the universities compared to others, e.g., farmers and workers, who are under-represented. If we classified occupations into three categories, e.g., (*a*) farmers, workers and people in the services, (*b*) free professionals and office workers, and (*c*) administrators and managers, the relative chances of participation of these groups in higher education would be about 1:3:5. Yet it is relevant to point out that 55 per cent of university students in Greece come from lower occupational groups, e.g., farmers, workers and service people.[**] And, according to OECD sources, Greece seems to be better off in the relative representation of occupational categories A (free professions, managerial, administrative) and E (manual occupations) than France, Germany, Italy, Holland and Spain.[***]

6. EDUCATIONAL EXPENDITURES

Expenditures on education in comparison to those on the other sectors of the economy indicate the State's intentions and priorities regarding the allocation of available funds. Also, the disaggregation of a given education budget by level of schooling shows the relative priorities the State attaches to the different levels of education.

It is well to remember that the criteria for judging the allocation effects of an educational budget are not easy to specify. Many other sectors compete for a limited amount of funds and the legislator has to strike a dividing line somewhere. But viewed *ex post*, a change over time in the allocation of funds to education versus other sectors of the economy can reveal a trend in the State's intentions and can be evaluated by external technocratic criteria.

Another point to bear in mind is that education budget data cover only a small part of the true cost of education. In the first place, there are many hidden costs which do not appear in the budget because of state-owned schools. Second, the private expenditure on education – which is substantial in every country of the world – does not appear either. Third, the major part of the time social cost of education – the foregone earnings of students while at school – has to be assessed by alternative methods (e.g. by an employee earnings survey). On the other hand, the current expenditure part of the state budget is a unique source of information on the amount of money required to keep the schools running, not to mention the quality of instruction they provide. And the capital account part of the budget shows the extra effort put in by the State to expand the physical capital formation in the school sector of the economy.

The Trend in the Allocation to Education of the Total Budget

Two points are worth noting about education's share of the public budget: the absolute size of the share and the trend over time.

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[*] See, for example, *Education, Inequality and Life Chances*, Vol. I, OECD, Paris, 1975, and Charles Hummel, *Education Today for the World of Tomorrow*, UNESCO, 1977.

[**] See G. Psacharopoulos and A. Kazamias, *op. cit.*, Appendix D.

[***] See *Education, Inequality and Life Chances*, Vol. I, *op. cit.*, p. 168.

Viewed comparatively, the absolute size of the educational share of the Greek budget is on the "low" side (in other Western European countries it is in the order of 20 per cent). However, the international comparative logic has recently lost ground. Different countries may have different priorities for public spending; and one must remember that other sectors of the economy compete for the same funds.

Similar caveats apply to another, also widely-cited statistic, namely, the share of total national income allotted to education. The figure for Greece, which is of the order of 3 per cent, might again appear "low" by international standards (it is about double in other Western European Countries).

National accounts data reveal a remarkable stability in educational expenditures throughout the sixties and up to the mid-seventies. The more recent budget data, however, show a clear upward trend. The same clear upward trend in recent years is detected in the investment component of the state budget devoted to education.

The Allocation within Education

A much better criterion for assessing an educational budget than the above is the *internal* allocation of funds to the different levels of education, each one of which has its own priorities relative to the rest. The pattern over time is very mixed. There is a gradual decline in primary education as more funds are devoted to the post-compulsory levels. The share of secondary education has increased steadily in the period 1961-1979, and currently amounts to one third of the total budget. The relative amount of resources devoted to higher education has nearly tripled during the seventies, reflecting the emphasis put on technical education and especially on the KATEEs. Finally, the share of higher education reached its peak in 1977 and shows an apparent decline thereafter.

Whether this trend in the allocation of funds is in the "right" direction is a matter of a finer breakdown of where the resources are or will be devoted. As discussed earlier, the current policy emphasis is on:

a) the expansion of compulsory schooling by 3 years;
b) the strengthening of the technical upper secondary stream;
c) the expansion of post-secondary technical schools, and
d) the implicit levelling-off of the university sector.

Policy (*a*) appears to be in the right direction according to the welfare criteria employed in this report.

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II

THE RECENT REFORMS

THE REFORM OF GENERAL EDUCATION: LAW 309/1976

One crucial area in the reform movement of the past decades has all along been the structure, content and orientation of the pre-university level of general education, which, until recently, has consisted of kindergartens, six-year primary (elementary), and six-year secondary schools. Not surprisingly, this general system of schooling was the first target of the reform policies of the present government immediately after it was voted into power in 1974.

The formulation of the general education policy

The first draft of the law-plan "On the Organisation and Administration of General Education", together with its "Prefatory Memorandum", was made public in the spring of 1975. It was the distilled outcome of special committees and work groups consisting of educational experts, university professors and officials of the Ministry of Education. In the summer and fall the law-plan was discussed by interested groups (e.g., the Federation of Secondary School Personnel) and by the press, and after some revisions it was taken up by the appropriate parliamentary committee in November 1975. It was introduced to the entire Voule (Parliament) for debate and action on 5 April 1976 and it was published in the government gazette as Law 309 on 30 April 1976. In the interim period, discussion of the various provisions of the Bill continued with increased vigour, and an important conference, chaired by the Prime Minister himself, was held at the end of January and the beginning of February 1976. In addition to the Prime Minister, the participants of this conference included the Minister of Education, the two Under-Secretaries for Education, the presidents of the three major Greek Universities (Athens, Salonica and the National Technical University), the presidents of the two teacher unions (for elementary and secondary school personnel), the chairman of the Parliamentary Committee on Education, the chief educational spokesmen for the official party of opposition, a representative of private education, and a university professor.

The purpose of the conference was, in the words of the Prime Minister, to find a "correct, objective, just and national solution to the elusive educational problem". Accordingly, all aspects of the law-plan were discussed together with certain basic principles underlying a reconstructed education system, and the major policy guidelines were reaffirmed.

The law-plan (Bill) on general education and Law 309/1976: As it finally evolved and was introduced into Parliament,the law-plan on general education provided, among other things, an organisational structure consisting of:

a) a six-year compulsory elementary school (ages 6-12), followed by
b) a compulsory unselective three-year *gymnasium* (ages 12-15), followed by
c) a highly selective three-year general *lyceum* (ages 15-18).

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In addition, the Bill stipulated: (*a*) that the language of instruction at all levels of general education be the "neohellenic" i.e. the *demotike;* and (*b*) that the curriculum include elements of the democratic organisation of the State, technological subjects and educational and vocational orientation.

The rationale of the new general education policy

Educational reform in general was justified on the twin principles of democratisation and modernisation. It was believed that social, economic and educational changes demanded adjustments in the school system to make it more efficient and more in line with the country's goals of development and modernisation. This also implied making the system more democratic. More specifically, the policy framework embodied in Law 309 was based on the following avowed considerations:

a) The raising of the school-leaving age (ROSLA), which was a constitutional mandate (Article 16 of the Greek Constitution adopted in 1975) and an important precondition for the aforementioned goals of democratisation and modernisation. Compared to other Western societies, especially those of the European Economic Community, Greece had the fewest years of compulsory schooling (6 compared to generally 9). ROSLA was also felt to be necessary for the cultural development of the country, the expansion of opportunities, particularly among the people in rural areas and for greater economic efficiency.

b) Selection through examinations at the end of compulsory schooling (age 15) and the reorganisation of upper secondary education into different types of schools for different purposes (e.g. the general lycea for preparation into AEIs), would deflate the increasing bulge of aspirants for admission into the universities and other post-secondary institutions. At the same time, they would alleviate the problems of under-employment and psychological frustrations. Such arrangements, according to the Prefatory Memorandum, would channel "the bulk of the student population, who are unable to continue towards higher studies ... in the direction of the growing new technical vocations, which ensure a comfortable and respectable life". In this way, the Memorandum continued, "a barrier could be erected to prevent the uncontrolled production of graduates of six-year gymnasia", thus alleviating the problem of unemployed graduates, and decreasing the pressure for further education.*

In this connection it is relevant to bear in mind that official pronouncements on general education at this time (19[illegible]1976) expressed only one dimension of the government reform programme that was envisaged. Another component of that programme was a reorganisation of technical and vocational education which was embodied in Law 576 enacted a year after the general education law under discussion here. The new technical education policy is analysed more fully below. But it is pertinent to point out here that the aforementioned objectives of government policy (relief of pressure for entrance into AEIs, decrease in unemployment among secondary school graduates, increase of individual and social well-being, etc.) could be attained if a substantial proportion of students who wanted to continue their education after the age of 15 were allocated into technical and vocational schools.

c) Related to the above was a concern to make the education system more efficient in the sense of a type of reorganisation and selection that would consider the social and economic needs of a modernising society. This is a theme that has been raised on several occasions and in different parts of this report.

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* Prefatory Memorandum on the Law-Plan "On the Organisation and Administration of General Education", 12 May, 1975, p. 2.

d) One basic undisputed belief that has pervaded public opinion throughout the period under consideration, indeed at all reformist periods in modern Greek history, has been that Greek education must remain rigorously selective, especially after the compulsory stage. At the Prime Minister's conference all participants favoured stringent examinations as a mechanism for selection into, or elimination from, the lyceum and the universities, and the lyceum itself as a highly selective school for those who were assessed to be capable of entering AEIs. Those who passed the set examinations were considered "capable" of continuing. Those who "failed" would be eliminated or could turn towards non-university education.

It is important to stress the selective and credentialling role which examinations are called upon to perform in Greek education and *a fortiori* in the Greek occupational and social structure. Such a policy, according to official opinion, is dictated by several factors, e.g. (*i*) the desirability of maintaining control over educational standards, i.e., ensuring the attainment of certain levels of knowledge which, among other things, are held indispensable for further education and for professional competence; (*ii)* the need to screen the intellectually most capable (the talented) for the few places that are of necessity available in the universities and other higher institutions; and (*iii*) the demands of educational efficiency as well as social equity, i.e. allocating students into schools of different types and purposes on the basis of objective criteria of achievement.

e) By general agreement, one of the most significant aspects of the reform of general education was the language policy. In essence this meant the dethronement of ***katharevousa*** (the pure form) as the official language of instruction in the schools and the establishment of ***demotike*** (the popular form).

It should be remembered that the so-called "language question" had been a source of bitter social, political and educational conflicts in modern Greek history. A concentration of factors, e.g., for example, a unique cultural-cum-linguistic tradition, a long period of alien occupation, a nation-state built on disparate "autochthonous", i.e. local, and heterochthonous (from the ***diaspora***) institutions and constantly vulnerable to foreign influences, and an education system that sought to combine borrowed Western concepts and models with traditional indigenous Greek elements, had conspired to making the schools in general, and the language question in particular, an arena in which different vested interests have vied for influence and power. They had also helped to establish the ***katharevousa*** as the official language of the State and of instruction in the schools. Efforts to introduce the ***demotike*** into the schools ran up against considerable educational and political opposition. This inhibited efforts at substantive reform and caused considerable hardship in the general education process.

Among educational reformers, the "language question" was not merely an issue over what form of Greek should be taught in the schools. It represented basic differences in Greek social and educational philosophy, indeed world outlook (***Weltanschauung***). The introduction of the modern Greek language* would help open up new cultural and intellectual vistas, those grounded in the contemporary (i.e. modern), living Greek "paiedeia"; it would infuse a new spirit in Greek pedagogy (less formalism, abstraction, and "explication de textes"); it would arouse pupils' interest in learning; and, ultimately, it would develop more versatile, responsible and democratic citizens, and happier human beings.

This is not the place to assess the validity of these views. It is simply to present the reasons for the support of the language reform as initiated through Law 309/1976. The government considered the establishment of the demotike in the schools as a historical imperative for educational, cultural and political reasons.

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* The modern Greek language is defined as the demotike language as it has been developed by the Greek people and recognised wrters without idiomatic extremes.

Reaction to the general education policy

The policy framework of the general education bill as it pertained to changes in the organisational structure of the school system, ROSLA and the language question, was supported by a wide spectrum of political, educational and public opinion. The official party of opposition threw its support behind the bill during the debate in Parliament. ROSLA and the introduction of demotike in all levels of schooling were also endorsed by the political parties of the left.

Yet the political alignments of the left did not accept all the provisions of the bill. In general these groups did not find the new measures sufficiently democratic, modern or equitable. To them, the division of secondary education into the gymnasium and the lyceum, the examinations for entrance into the lycea, and the implied intent to change the flow of students after the compulsory stage so that a sizeable percentage would opt for the technical/vocational course created barriers to educational opportunity.

It was the same with the climate of opinion outside Parliament. The extension of compulsory education and the apparent solution of the problem of "diglossy" were both heralded as important steps in the modernisation and democratisation of the education system. Powerful interest groups such as the Federation of Secondary School Personnel (OLME) approved virtually all aspects of the reform bill of concern here. And with them virtually all the government conceptions and assumptions regarding educational selection and efficiency, organisation of schools, technical and vocational education and language. On the other hand, organisation, or organs of public opinion that were leftist in political orientation or leaned towards that direction were critical of the arrangements regarding post-compulsory schooling, especially the system of examinations and the directions to which it led.

It should also be noted that when the bill was being discussed, and for a time after that, the latter innovation, namely, the system of examinations for the lyceum, was perhaps the most troublesome single aspect of the reform for a wide segment of the public. It continued to be a source of considerable anxiety and controversy, especially in the summer when the exams are taken. And this despite the fact that in the implementation of the law these examinations have become more *allocative* than *eliminating;* students who pass (and over 80 per cent do) can enter the general lyceum if they so wish. Actually, it appears that the percentage of students who continue after the new gymnasium is not different from what it was under the old system. It seems, therefore, that the argument that the reform are creating barriers to educational opportunity is not justified.

IMPLEMENTATION OF THE GENERAL EDUCATION REFORM

At a lower policy-making level than Parliament, the implementation of many of the provisions of Law 309, of relevance here, was by statute left to special presidential decrees and ministerial decisions. Such a regulatory procedure entailed the formulation of policy guidelines and directives regarding, among others:

a) the nature of the transition from primary schools to the gymnasia (henceforth to be carried out without entrance examinations);
b) the organisation and administration of all types of schools;
e) the types of examinations for entrance into the *lycea,* for promotion from one class to the other, and for admission into AEIs;
d) the curriculum of the schools (e.g., the programme of studies indicating also the "hierarchy" of subjects, the syllabus for each subject and the timetable);
e) the establishment of experimental schools attached to the universities; and
f) the preparation and selection of new textbooks and other instructional materials (aids).

1. Curriculum development

Soon after Law 309 was passed, intensive efforts were made to revise and modernise the curriculum of the schools in accordance with the provisions of the new law. Major responsibility for this undertaking was charged to KEME, the newly-created Centre for Educational Research and In-Service Training of Teachers. In addition to its own personnel, KEME enlisted the cooperation of outside experts, and worked out for ministerial approval curriculum guidelines, syllabuses and textbooks. Specifically, since the exactment of the general education bill, the following curriculum developments have been observed:

a) Preparation of new and modernised syllabuses for the kindergartens and the primary schools.

b) Adaptation for school use of the short Neohellenic Grammar by the famed linguist Manoles Triantaphyllides. After some delays, a second adaptation of this fundamental text has now been released for production and use in the schools in 1979-80.

c) Ancient Greek texts translated into modern Greek have been introduced into the gymnasium.

d) A revised programme of studies, with detailed syllabuses for each subject and with weekly hours per subject, for the newly-established three-year gymnasia. (Presidential decree No. 831, 20 September 1977, and Presidential decree 15 May 1978). Thus it could justifiably be said that in 1979-80 the gymnasium will function on the basis of an entirely new programme in all of its three classes.

e) A revised programme, as above, for the first classof the lyceum (Presidential Decree, 15 May, 1978). The programmes for the second and third lyceum classes have been developed by KEME but, as of this time (summer 1979) they have not been officially presented as presidential decrees.

f) Change of the language form (*metaglottise*) from *katharevousa* to *demotike* of all textbooks used in the gymnasium.

g) The preparation of the new textbooks commissioned by the Ministry of Education, in the following areas:

- Modern Greek for use in the 1st and 2nd classes (grades) of the gymnasium. The text for the 3rd class has just been approved and will be used this school year.
- History for use in the second class of the gymnasium. Two other textbooks, for the third lyceum class, are in the hands of the special committee appointed to evaluate them.

h) An integral component of the general education of the students has been the introduction of cultural activities in the gymnasium. This is an area where the student himself plays a major part in his own education in that he selects not only the activities but also the way in which he will participate in them.

i) *Electives in the general and technical lyceum.* One of the criticisms of the traditional six-year gymnasium has been that it was monolithic in the structure of the curriculum and in its educational orientation. It also monopolised access into tertiary institutions. The reforms sought to break up the educational hegemony of the six-year gymnasium by establishing two three-year self-contained cycles and diversifying the upper cycle into general and technical/vocational lycea. One measure in this direction was the introduction of electives in the general lycea.

Beginning with school year 1978-79, the subjects in the second and third classes of the general lyceum have been differentiated into (*i*) common or core subjects and (*ii*) electives. There are two groups of electives: Group A, which includes ancient Greek, history and Latin, and Group B, which includes mathematics, physics and chemistry. Students in the second lyceum class must choose one of the two group options and they must continue with it in the third lyceum class. All electives except Latin in the general lyceum and chemistry in the technical lyceum are also subjects in the core curriculum. However, in addition to the programme alternative that this innovation provides, electives provide the opportunity to study in greater depth and breadth certain subjects which are believed to be necessary for advanced work in the universities and other higher institutions. All lycea must have these two groups of electives.

The examinations in the elective subjects plus composition are "external" and are held nationally (panhellenic). As described more fully below, they are also used for admission into AEIs.

It is believed that these arrangements will have several beneficial outcomes, e.g.:

- the quality of education in the lycea will be raised;
- preparation for higher studies will rest essentially with the teachers and the school, not the *frontisteria;*
- the chance factor for admission into AEIs will be lowered;
- parents and students will be relieved from the anxiety which prevailed in the summer months, i.e. the period of cramming for the examinations;
- students can choose to suit their interests; and
- parity is established between the general and the technical/vocational lycea.

j) *Technology in the gymnasium.* Law 309 stipulated that technological subjects be introduced into the curriculum of the three-year gymnasium. As worked out by KEME, this provision took the form of general shop experience with technological devices and basic tools. Its purpose is to develop manual skills deemed necessary in the everyday affairs of life, and to arouse interest in industry and technology. Technology in the gymnasium is not perceived in narrow vocational terms but as part of general education.

It was decided to introduce the subject on an experimental basis starting with 2 hours per week for each gymnasium class. This experimental beginning was duly carried out in 1977-78 in the first class of 4 gymnasia in the Athens area involving approximately 570 pupils from diverse socio-economic backgrounds. In 1977-78, the experimental programme was extended to the first class of 15 more gymnasia scattered throughout the country, while in the 4 original schools the subject was introduced into the second class as well.

The plan for the coming year, 1979-80, is to extend the programme to another 50 gymnasia.

k) *Educational/vocational orientation in the gymnasium.* Another innovation mandated by the new law, in the context of modernising the curriculum of the schools and attuning Greek education to contemporary technico-economic realities, is the introduction, again in the gymnasium, of educational and vocational orientation. Official circles, reflecting a widespread educational belief, view this innovation as potentially a very salutary development. It would (*a*) create a more favourable attitude towards technical/vocational education, (*b*) make the education system more efficient in that students would make better educational and/or career choices after the compulsory stage (age 15) and there would ultimately be greater congruence between schooling and work, and (*c*) contribute to greater understanding of oneself, the way of life one chooses to live, and ultimately to a happier existence.

Since 1976, work groups have been planning the implementation of educational and vocational orientation in the schools. It was decided that this activity begin on an experimental basis and expand gradually and until adequate personnel have been trained. As of today (summer 1979), the following developments can be noted:

i) As a "kick-off" to the programme, in March 1978, KEME in cooperation with the Manpower Employment Organisation (OAED), organised three seminars, two in Athens and the other in Salonica, for educational personnel, mainly the principals of gymnasia and supervisors (inspectors) in the two regions. Greek and foreign specialists gave papers and conducted discussions.* Following the seminars, 31 school personnel (20 for Athens-Piraeus and 11 for Salonica) were chosen, who, in close cooperation with KEME, introduced educational/vocational orientation in 20 gymnasia in the Athens-Piraeus area and 11 in Salonica. There were 50 000 students involved.

ii) In January and February 1979, three-day orientation seminars were organised for the educational personnel of Volos, Patras and Ioannina. Members of KEME and OAED gave papers and conducted discussions. Following the seminars, educational/vocational orientation began in all the gymnasia of the aforementioned cities.

iii) Establishment of links between the Ministry of Education and the Manpower Employment Organisation, an agency which has been involved in vocational guidance for some time. In November 1978, a joint work group, consisting of members from the Ministry of Education and OAED, submitted a report defining areas of possible cooperation (exchange of information, training of personnel, etc.).

iv) Appointment of a study group charged with the responsibility of evaluating the programme thus far. The study group will submit its report by 30 September 1979.

v) Twenty scholarship have been approved and granted to educationists for study overseas. Holders of these grants will depart in the fall of 1979-80.

2. Selection and examinations

We have already commented on the significance and the role of examinations in Greece as a means of educational selection (from one level of schooling to the next) and occupational placement. On the one hand, the new measures provide for the abolition of the examinations from the elementary school to the gymnasium at age 12, an innovation which accords with the extension of compulsory education, and the general entrance examinations into the universities (age 18+). On the other hand, national examinations were instituted for entrance into the lyceum (age 15) and a new set of arrangements replaced the previous examinations for admission into AEIs.

a) *For entrance into the lyceum*

The regulations governing the lyceum examinations, as they have come to be known, are spelled out in minute detail in presidential decrees. Thus, for example, in Presidential decree 419/1978, the examinations for the general lyceum specify: (*i*) the structure hierarchy and responsibilities among others, of the several examining committees (central and regional); (*ii*) the place and method of grading; (*iii*) the subjects in which the candidates are examined, together with the guidelines about the nature of the examination for each subject; and (*iv*) the methods, procedures and the timetable that must be followed throughout the examination period (i.e., how and how many topics are selected, how the exams are transported to the examining centres, conducted and supervised, what colour pencil must be used by the two graders, how the results are announced, etc.).

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* See Ministry of National Education and Religions, KEME, *Educational/Vocational Orientation in the Gymnasium* (Athens: Organisation for the Publication of School Textbooks, 78).

The first lyceum examinations, as they have come to be known, were held in the summer of 1977 and have been held every summer since. Students who successfully complete the three-year gymnasium (i.e. who possess a gymnasium school-leaving certificate) may choose one of three examination options: (*i*) for the general lyceum, (*ii*) for the technical/vocational lyceum, and (*iii*) for both lycea. For the general lyceum they are examined in composition, ancient Greek literature (in translation), mathematics and either history or physics. For the technical/vocational counterparts, the examination subjects are physics, mathematics, chemistry and composition. In all subjects, students are examined in the material which is taught in the third class of the gymnasium. Furthermore, gymnasium graduates may enter the new technical/vocational schools without examinations.

b) For admission into AEIs

Another policy change in the system of selection is the method of admission into AEIs. This will be implemented in two stages, the first in the summer of 1979 and the second in the summer of 1980. Thus, those who will enter AEIs and higher institutions in the fall of 1980 will have been selected on the basis of a different set of arrangements from those admitted until then.

Previously admissions into tertiary institutions was based mainly on the results of "general entrance examinations", administered on a national scale at the end of August and the beginning of September of each year. Students who had successfully completed the full secondary school course were entitled to sit for these examinations. In filling out his application for the examination, a candidate indicated the field of study (e.g., medical sciences, law, physics-mathematics, KATEE, etc.) and within it the specific subject preferences in ranked order. There were variations in the subjects examined depending on the field of study designated as the one into which a candidate wished to enter.

For a long time, this system had been the target of constant and severe criticism. It was, among other things, felt to be unreliable and hence inefficient in terms of selecting the most competent; and it had all the social and psychological drawbacks of selection procedures based on one examination taken at one particular time.

It is believed that the new policy will eliminate the previous anomalies and result in a more humane, fair and efficient selection of students into tertiary educational institutions.*

i) *General lycea:* In the second and third classes of general lyceum students take two sets of subjects: common (core) and electives. The elective subjects fall under two categories: (*a*)"humanities (ancient Greek, Latin and history) and (*b*) mathematics and sciences (mathematics, physics and chemistry). All electives, except Latin, are also included among the common subjects. They are thus supposed to provide deeper and wider knowledge in the same discipline. All students are required to take the common subjects (the standard curriculum fare of an academically oriented school) and one of the two sets of electives, that is the elective principle applies only to the "humanities" or "sciences" option.

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* See Ministry of National Education and Religions, *Panhellenic Examinations of the Lyceum: New Method of Selection for Highest and Higher Schools*, March 1979 (in Greek).

At the end of the second and third lyceum classes students sit for specially held national (Panhellenic) examination in the elective subjects, plus composition. In addition, they are examined by the school authorities in the core areas for the usual purposes of promotion from the second to the third lyceum class and for graduation. The lyceum school leaving certificate (diploma) is of two types: type A, awarded to students who took the "humanities" electives, and type B to those who opted for the "sciences". The "humanities" diploma entitles a student to apply for admission into the Schools of theology, philosophy, law and into the Panteios School of Political Sciences. The "sciences" diploma entitles one to become a candidate for the Polytechnical, Medical, Dental, Veterinary, Physico-mathematical and Agricultural Schools. Holders of either diploma may apply for admission into the Economics Departments of the Law School, the Highest School of Economic and Commercial Sciences, the Highest School of Industry, the Highest School of Fine Arts, the Pedagogical Academies and other teacher training institutions, the KATEEs and the private higher technical schools.

ii) *Technical/vocational lycea:* In the technical and vocational lycea there are no electives as such. However, if a student wishes to continue in an AEI, he/she must take "additional" subjects and national (Panhellenic) examinations in them. Like his/her counterpart in the general lyceum, he/she must also take an examination in composition. The type B school-leaving certificate (diploma) described above is also awarded to graduates of the technical/vocational lycea, who took the additional subjects as well and entitles its recipients to apply for admission to the same university and non-university level schools.

iii) *The selection formula:* According to the new policy, selection into AEIs will be based on: (*a*) the candidate's school preference and (*b*) a composite index derived from the sum of: the average grade at the end of the second class of the lyceum, the average grade in the lyceum school-leaving certificate (diploma), and the grades earned in the two national examinations (in composition and the electives or the additional subjects at the end of the second and third classes of the lyceum), and all these multiplied, for each school, by a particular coefficient.

Selection into higher institutions (Pedagogical Academies, KATEEs, etc.) will be based on: (*a*) the candidate's school preference, and (*b*) a composite index derived from the sum of: the average grade at the end of the second class of the lyceum, the average grade on the lyceum school-leaving certificate (diploma), and the grades in certain subjects in the second and third class of the lyceum, and all these multiplied, for each school, by a particular coefficient.

iv) *The rationale of the new policy:* It is believed that the new system offers numerous advantages over the previous ones. These are identified as follows:

a) The two main options ("humanities" and "sciences") will be offered in all the lycea, hence all lyceum students will be able to prepare for the post-secondary studies of their choice. In the old system the "theoretical" and "practical-scientific" options were offered only in the cities and larger towns. In the smaller towns only the "theoretical" branch was provided. Hence students in such places were obligated to seek the appropriate "practical/scientific" preparation for higher studies in another centre or to attend the "theoretical" option in their own place, the consequence of which was that they were poorly prepared.

b) There will be no additional and external examinations. The old entrance examinations, and external method of selection, will be abolished. Henceforth, entry into AEIs will be based on national examinations, which, nevertheless, will be part of the lyceum exams.

c) In the panhellenic examinations, students will be tested in the subject matter which they will have been taught in the lyceum. Previously, questions in the university entrance examinations could have been drawn from the entire syllabus, regardless of whether it was covered in the schools. Among other things, this consideration will contribute to the improvement of teaching in the lycea.

d) The element of "chance" will be lessened. Selection will no longer be based on the grades received in four three-hour written examinations which were conducted during a period of 4 to 8 days. The new system offers opportunities to rectify poor performance in one exam. It also forces the student to exert himself earlier in his school career (in the second class of the lyceum), hence to consolidate better the knowledge he acquires.

e) Students in the technical/vocational lycea will not be obligated to take subjects in which they are not interested. If they do not want to continue their education in an AEI they do not have to take the additional subjects.

f) Finally, the anxiety of the summer months, which was so characteristic of the previous system, will be avoided since the panhellenic examinations will be held in June.

3. In-service training of Teachers: SELME

Although not directly related to Law 309, an important innovation in the general plan for the reform and modernisation of Greek education has been the establishment in Athens of the School for In-service Training of Secondary School Teachers (SELME). As defined in Presidential decree 127 (Government Gazette 40/12.2.1977), the purpose of SELME, insofar as secondary school teachers are concerned, is (*a*) to supplement their (the teachers') knowledge by acquainting them with new developments in their area of subject matter specialisation, (*b*) to bring them up to date on new methods of teaching and contemporary pedagogy, and (*c*) to adopt knowledge and methods of teaching to changes in Greek educational realities.

For the teachers in service, the course of studies extends over one year (1 October to 30 June) and the subjects include (*a*) "common subjects", e.g., philosophy, general pedagogy, comparative education, methods of teaching, psychology, educational administration, sociology, economics, and "elements of democracy", and (*b*) special subjects for the teachers of several academic disciplines (e.g., teachers of theology, literature, mathematics, physics and foreign languages).

Teachers are selected by a specially-appointed committee.

EVALUATION AND PROSPECTS OF THE GENERAL EDUCATION REFORM

The implementation of the reform policies on general education is still going on and it is too early to attempt an evaluation of their efficacy. What would be valuable at this stage would be (*a*) to refer to the evidence that is available on the reception of the reforms and their effectiveness thus far, (*b*) to comment on some of the more critical issues raised by policy decisions from a comparative perspective and in the light of relevant educational theory, and (*c*) to make whatever estimates or assessments seem appropriate of the likely effects or implications of some of the more germane aspects of the reforms, e.g., raising of the school-leaving age (ROSLA).

1. Reception and effectiveness

In an opinion survey conducted in May-June 1977, Greek parents by and large indicated approval of virtually all reform measures, and in certain cases, they did so by large majorities. Thus, for example, over 80 per cent of the parents sampled (over 2 500) endorsed the introduction of technological subjects and cultural activities in the gymnasia, while 75 per cent approved educational/vocational orientation in the same schools; 71 per cent of the parents accepted the teaching of ancient Greek texts in translation in the gymnasium while just over half thought that three years of the same subject in the original was quite sufficient in the lyceum.*

From scattered anecdotal evidence and personal observations it appears that teachers and students in the gymnasium show more enthusiasm and interest than before in ancient Greek literature now that this subject is taught in translation. Likewise, a more systematic evaluation of the newly introduced subject of elementary technology has shown that parents and students are favourably disposed towards this innovation.** Indeed there is limited evidence that some students have changed their original plans and are now planning to follow the technical/vocational route because of their exposure to elementary technology in the gymnasium. It appears also that students and parents have responded favourably to the newly organised cultural activities.

However, at this time it is not possible to draw any definite conclusions as to the full effects of the new institutional mechanisms. This can be said with respect to several important policy expectations, e.g., (*a*) change in attitudes and demands in favour of technical/vocational education, (*b*) alternative options and routes to higher education, (*c*) less reliance on the *frontisteria,* the "cram schools", which prepare students for examinations, and (*d*) closer connection between the education system and the job market and, therefore, greater employability of secondary school graduates. For a more reliable evaluation a longer timespan must elapse between implementation and evaluation.

2. Policy issues: comparative and theoretical perspectives

This sections offers an evaluative analysis of the more salient policy decisions made on the basis of Law 309.

The structural framework of the reorganised Greek education system displays characteristics of the Western European, especially the continental, pattern of schooling. Like the French, for example, there is a common lower secondary stage, followed by a diversified selective upper secondary. There are, however, some differences between the Greek system, at its present stage of evolution, and comparable Western European counterparts. An examination of such differences would be especially valuable and relevant from the standpoints of modernisation and/or democratisation, two avowed goals of Greek educational reform. One area where this is especially true is the new gymnasium.

Like the French *collèges d'enseignement secondaire* (CES), the Greek gymnasium is a sort of "comprehensive" middle school; it is for all students and it provides a common set of required, mostly academic, subjects. In addition, both types of school introduce the students to elementary technology, organise cultural activities outside the normal curriculum, and provide educational/vocational orientation. Unlike the French CES, however, the Greek gymnasium does not differentiate students into streams or groups on the basis of demonstrated interests and abilities, nor is there a variation in the organisation of instruction, methodology and evaluation. In these respects the new Greek gymnasium does not differ in any substantive way from the previous lower classes of the traditional six-year gymnasium.

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* See Centre for Political Research and Recurrent Education, *The Reform of Education and Public Opinion,* Athens, 1979 (in Greek).

** See S.N. Paleokrassas, "Experimental Application of Technological Subjects in the Gymnasium", unpublished paper (in Greek).

Another area where there are differences between the Greek and the Western European systems is the upper level of secondary schooling. The introduction of elective subjects is a step towards greater flexibility and choice, two characteristics of a modern education system. In contrast, however, to the European counterparts, the choices in the Greek lyceum are, at present, limited. This is another area where government efforts need to be directed.

3. Effects of ROSLA

Making the first three years of secondary education compulsory in one go sounds a tremendous change. Yet the pace for this change had been gradually set voluntarily in the years prior to the reform. The rapid urbanisation and rising income of the population led to an increase of the social demand for education, especially for the level that was the subject of the reform. Enrolments at the first cycle of secondary education have been rising on the average by 8 000 pupils per year in the decade prior to the reform.

It is estimated that when the ROSLA becomes fully effective, the extra number of students in the gymnasia will be around 114 000 (see Table 1). This represents a 36 per cent increase in the student body of the pre-reform first cycle (first three years) of secondary general education.*

The first question that arises is: Will the Greek education system be able to increase its capacity within three years so as to accommodate the additional number of students? This question can be answered by looking at what the increase in the student population means in terms of teachers, classrooms, current and capital expenditures.

As shown in Table 1, the extra number of teachers is estimated at 2 850, which represents a 14 per cent increase of the current stock of teachers. In spite of the numbers involved, finding the extra teachers is not likely to be a bottleneck in the implementation of ROSLA. For there already exists a backlog of applications for secondary teacher posts. Also, the amount of extra current expenditure required to run the additional classrooms and staff pay does not seem to present any problem as it amounts to a mere 5 per cent increment of the annual current account of the educational budget.

Table 1

SOME ORDERS OF MAGNITUDE LIKELY TO RESULT FROM THE ROSLA

Item	Absolute magnitude	As percentage of the pre-reform magnitude
Extra number of gymnasium students	114 000	36
Extra number of teachers	2 850	14
Extra annual recurrent cost	$22 million	5
Extra annual investment cost	$76 million	46
Extra number of graduates from 3rd year of the gymnasium	31 000	39
Permanent reduction of labour force	65 840	2

Source: G. Psacharopoulos, "Economic implication of raising leaving age", *Comparative Education Review*, February 1978.

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* For alternative estimates of the likely number of students and costs resulting from the ROSLA, see Ministry of Education, "Projections of the student flow in the gymnasia by the extension of compulsory education", February 1976 (in Greek) and Ministry of Education, "Report of the working party on the implications of the ROSLA and the switch towards technical education", October 1977 (in Greek).

The real bottleneck in the implementation of ROSLA might be classrooms. There is a "roof problem" in secondary education, many schools operating on a morning-evening short basis, especially in urban areas. It is estimated that the new law will create a need for an investment programme of 228 million US dollars which represents, on an annual basis, an increase of nearly 50 per cent of the present annual capital expenditure on education. It remains to be seen whether this investment will be somehow financed or the "roof problem" simply accentuated.

The figures reported in Table 1 could be considered to be the result of the immediate (short run) impact of the new law. Beyond these immediate effects, the ROSLA is likely to have some long-run social implications. These can be classified under the traditional headings of efficiency, social equity and employment.

Efficiency: The extra three years of schooling imposed upon a part of the population can be seen from two points of view: consumption and/or investment. A higher level of educational attainment confers undisputed consumer benefits on the recipient mainly in the form of more informed decision-making and participation in community affairs. When viewed from this state consumption point of view one cannot raise the issue of how efficient public spending is represented by ROSLA. Like any other consumption expenditure it is by definition supposed to benefit the "consumer" by the sheer fact that he/she was willing to pay a price for acquiring the "good" involved.

However, educational expenditures have been increasingly viewed as investment.* The investment viewpoint does not deny or contradict the consumption value of education. It simply complements it in the following sense: if educational expenditures form a new kind of capital – called human capital – then one *must* question the economic efficiency of ROSLA by contrasting its costs with the benefits. For there exists a host of other activities in the economy, like roads, hospitals and factories, that compete for investment funds. Therefore, in order to maximise the value of the country's social product one must invest where the benefit-cost ratio is at its highest; or where the social yield of return is at its maximum.

How efficient is the Greek ROSLA likely to be? Unfortunately, appropriate data do not exist for answering this question in an unambiguous way. However, plenty of peripheral evidence exists to allow an attempt at establishing rough upper and lower bounds on the marginal rate of return to investment in three extra years of schooling beyond primary school.

A survey of urban annual earnings in Greece in 1977 has revealed the following structure:

– Earnings of those with primary education	135 851 drs.
– Earnings of those with 3 years secondary school	158 334 drs.

As a first approximation one could treat the difference in earnings between the two groups of workers as representing the marginal benefit of three years of schooling, i.e. 22 483 drs. The average recurrent cost per student at this level of education is estimated at 9 258 drs. However, the true social cost of investment in education includes the lost production while studying, which is usually measured by foregone earnings. This opportunity cost will clearly differ between urban and rural children. The former (ages 13-15) can hardly be assumed to have an appreciable opportunity cost. Rural children, however, do have an opportunity cost at this age because of the help they provide in agricultural production. In the absence of any data on the productivity of youth labour in agriculture, two estimates were made to approximate the returns of the

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* This view is not new. It is found in Adam Smith's ***Wealth of Nations***, 1776; it has been expounded by Strumilin in the ***Planned Economy***, 1929; and it has received major recent attention starting with T.W. Schultz's writings in the late fifties (e.g. see his "Investment in Man: An economist's view", ***The Social Service Review***, 1959).

3-year investment represented by ROSLA and corresponding to the following assumption

a) zero opportunity cost, and

b) opportunity cost equal to the wages of a primary school graduate.

Using these alternative assumptions, the upper and lower bounds of the returns to ROSLA were estimated at 80 and 5 per cent, respectively.

In spite of the roughness and wide range involved, one could confidently argue that the true profitability of investing in ROSLA is likely to be above any alternative criterion social rate of return. The reason is that ROSLA represents investment at the lower end of the school ladder and there exists plenty of evidence from other countries that the yield to investment at this level is at its highest.[*]

One interesting dimension that arises in discussing the efficiency of the Greek ROSLA is the rural-urban one. The raising of the school-leaving age will mostly affect rural families, as social demand in the urban centres has already accounted for increased enrolments in the first 3 years of secondary schools. The efficiency analysis of ROSLA becomes more difficult in this case as the issue is mixed with the voluntary-involuntary character of the decision to invest as well as with who finances the opportunity cost of the individual while at school. It has been shown in the literature that minimum school laws are *privately* inefficient.[**] This is the case of Figure A where two groups of people are distinguished: urban children with high "ability" and low opportunity costs, and farm children with low "ability" and high opportunity costs. The term "ability" here does not have any mental calibre connotation. It simply reflects the fact that urban children have higher opportunities later in life to realise higher returns from their investment in schooling. Under such circumstances, farm children would achieve their optimum by completing, say, 6 years of schooling. A minimum schooling law of 9 years would oblige them to move to the vertical dotted line, which is inefficient from their point of view as the costs exceed the returns. (Note that urban children have remained unaffected by the new law, at point B). Now, if point C represents returns which are higher than any likely social rate of discount (and this is very likely to be the case), the State could subsidise the families affected by the new law (in Figure A) by lowering the marginal cost of schooling for farm families to MC'). In such case, point C would represent a privately efficient choice and compulsion.

Historically, the effect of minimum schooling laws on increasing school attendance has been doubtful. Actually, the recent study concluded that US compulsory schooling legislation did not cause the observed increases in the levels of schooling in the late nineteenth and early twentieth centuries.[***] The weak influence of such legislation on enrolments has been documented in earlier studies as well.[****]

Equity: There exist at least two distinct dimensions of the equity effects of the new law: the equality of opportunity aspects and the narrower income distribution aspect. Extending compulsory schooling by three years is bound to increase the equality of opportunity of access to the higher levels of education. For, as it has been argued above, it will be mainly the farm children who will be affected by the ROSLA. At the same time, it has been argued that because of the involuntary character of the

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[*] See, for example, G. Psacharopoulos, ***Returns to Eduction: An International Comparison,*** Elsevier, 1975.

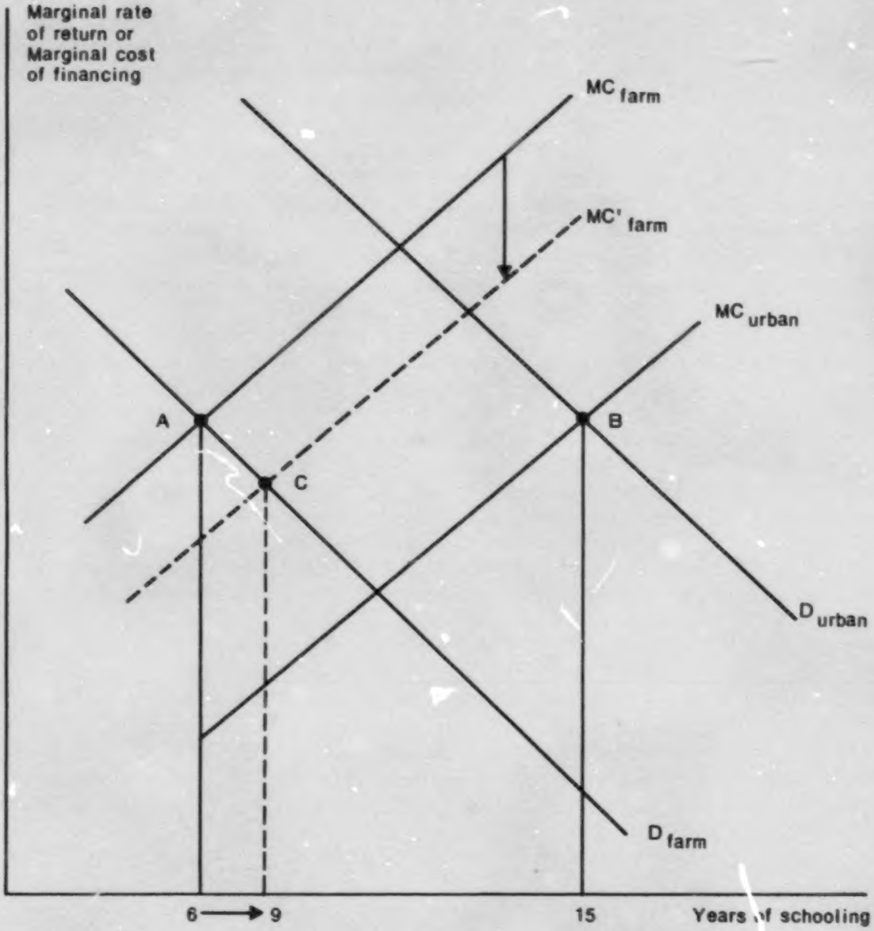
[**] See G. Becker, *Human Capital*, National Bureau of Economic Research, 2nd edition, 1975.

[***] See W.M. Landes and L.C. Solmon, "Compulsory schooling legislation: An economic analysis of law and social change in the nineteenth century", *The Jou[illegible]f Economic History* (March 1972).

[****] See G. Stigler, *Employment and Compensation in Ea[illegible]ion*, National Bureau of Economic Research, 1950, Appendix B; and J. Folger and C. Nam, *Education of the American Population*, U.S. Bureau of the Census, 1967.

Figure A

THE EFFECT OF ROSLA ON THE DESIRED NUMBER OF YEARS OF SCHOOLING



decision for most of them, not many children will take advantage of this opportunity and continue their education beyond the age of 16. On the other hand, the new law must be welcomed even for the few children who will be able to demonstrate their ability and go up the educational ladder, something they could not have achieved under the present system.

The income distribution effects are more difficult to assess. At the intuitive level the ROSLA must render income distribution more equal as it will push up some below-average wage earners towards the mean income of the population. This is clearly seen in the monetary reward structure of Greek society by level of education, although it is reminded that the sample refers only to urban employees (see Table 2).

The ROSLA is likely to render income distribution more equal on an additional ground: the supply of those with 9 years of schooling will increase annually by about 31 000, whereas there will be a gap of approximatively 65 000 of labour with lower qualifications. Thus, on mere supply and demand reasons, the wage differential is expected to decrease. The extent of the decrease will of course depend upon several factors like the elasticities of substitution (and demand) between different kinds of labour and the length of the run one is willing to consider. Relying once more on other studies, it has been shown that substitution possibilities are at their highest when the lower skills are compared.* Thus, the wage differential is not bound to change dramatically, especially when one adopts a longer time horizon when the economy would have adapted to the new skill structure of the labour force.

Table 2

ANNUAL EARNINGS BY LEVEL OF EDUCATION, 1977

Educational Level	Annual earnings in drs.
Primary school graduate	135 851
3 years secondary school	158 334
Secondary school graduate	182 712
University graduate	231 105
All levels	194 213

If the monetary reward structure is not going to alter significantly after ROSLA, one could approximate the importance of ROSLA on income distribution by means of econometric simulation. The starting point of the simulation of a functional relationship of the kind:

$$Y = f(S) \tag{1}$$

where Y is annual earnings and S the number of years of schooling of the individual. The next step is to specify (1) in a semi-logarithmic form

$$LnY = a + bS \tag{2}$$

take variances of both sides of (2) and thus express income distribution (VarLnY) as a function of the dispersion of years of schooling of the population, i.e.**

$$VarLnY = Var(bS)$$

The effect of ROSLA is to reduce the dispersion of educational attainment of the population and hence reduce income inequality (see Figure 8).

In order to assess the size of the improvement of income distribution after the ROSLA, an earnings function of the form

$$LnY = 10.59 + .059S + .066EX - .0011EX^2$$

was fitted to the 1977 urban employees sample, where EX is the number of years of experience in the labour force. The value of VarLnY in this sample is equal to .128

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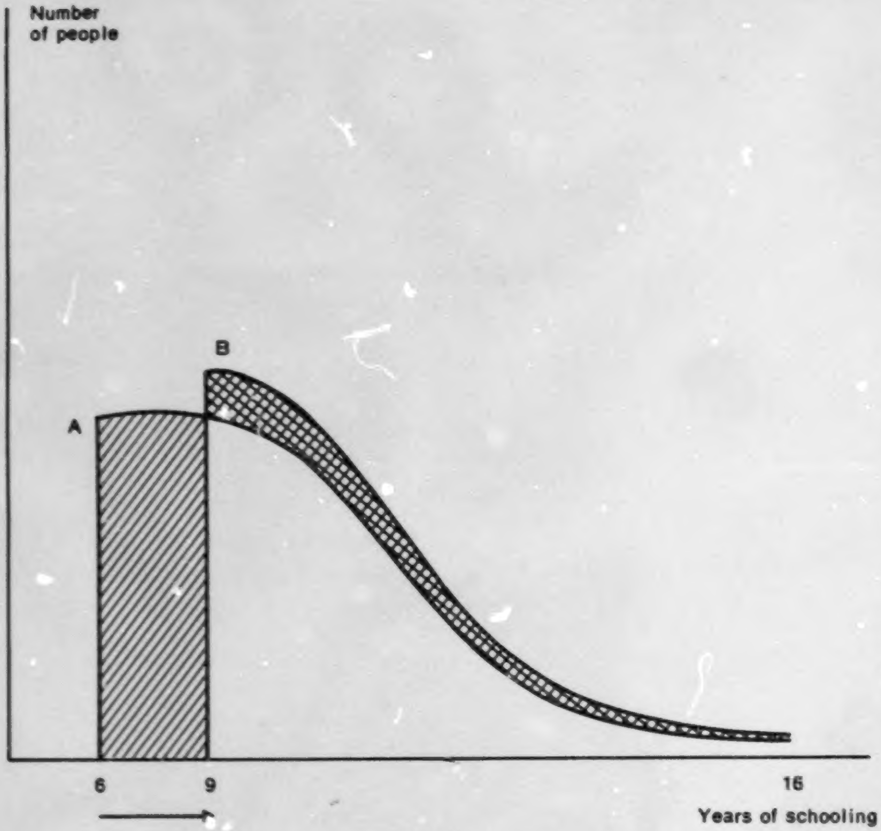
* See G. Psacharopoulos; "Substitution assumptions vesus empirical evidence in manpower planning", *De Economist*, November/December 1973.

** For an elaboration of this point, see B.R. Chiswick, "Minimum schooling legislation and the cross-sectional distribution of income", *Economic Journal*, September 1969.

Figure B

THE EDUCATIONAL DISTRIBUTION OF THE POPULATION BEFORE (A) AND AFTER (B) THE ROSLA



Note : Figure is drawn out of scale for illustration.

and this can be considered the basis of the simulation. Then, by giving artificially to an individual additional years of schooling (relative to the ones he or she already had) one can predict the simulated individual's income (Y), find the new variance of the logarithm of earnings and compare it to the base. The extent to which the predicted variance decreases relative to the base provides a measure of the improvement in income distribution resulting from the ROSLA.

Table 3 shows the results of this simulation. By giving more years of schooling to those who have a low level of educational attainment, income distribution becomes more equal.

Table 3

THE SIMULATED EFFECT OF ROSLA ON INCOME DISTRIBUTION

Educational policy	Mean years of schooling	Percentage change of income distribution relative to the base
Base	12.3	
No person with less than 9 years of schooling	13.3	24 per cent improvement

Of course the 24 per cent improvement shown in Table 3 exaggerates the true improvement in income distribution because, as argued earlier, one of the effects of ROSLA will be to change the very parameters on which the simulation was based. However, the expectation remains that in the Greek case the effect of ROSLA will be beneficial on income distribution as it has been elsewhere.[*]

Employment: The expected employment effects of ROSLA are of two kinds, none of which is independent of the efficiency effects. The first employment effect is a permanent reduction of the labour force, as a part of those who were participating before in the labour market will now be in the gymnasium. The second effect is a change in the educational mix of the labour force because the category of those with a primary school certificate as their sole qualification will gradually disappear. Another possible reason for the changing qualification mix of the labour force in the new "steady state" is that the extra graduates from the gymnasia will put pressure on for entry into the post-secondary institutions and thus create a second-order effect towards the qualification upgrading of the labour force. For reasons mentioned below, however, the magnitude and importance of this second-order effect is doubtful.

The employment effects are not independent of the efficiency as output (X) and labour (L) are connected by means of a production function, say

$$X = f(K,L)$$

where K represents capital services. A permanent reduction of the labour factor input, *ceteris paribus,* is bound to lead to a permanent reduction of output. On the other hand, the altered qualification mix of the reduced labour force might well offset the reduction in output, if the change in the mix was in the desired direction from the efficiency viewpoint.

The trade-offs involved are taxing empirical matters and a full general-equilibrium investigation of them has never appeared in the literature for a particular country.[**] However, it would be possible in the Greek case to speculate on the likely employment effects of ROSLA based on partial evidence.

The first question is: what kind of skills will be affected by the ROSLA? Table 4 provides an occupational breakdown of those aged 10-14 in the labour force.

Abstracting from the age discrepancy (the ROSLA deals with the 13-15 year-olds) one could say that the expected permanent reduction of the labour force will be in the order of 2 per cent. On the assumption that the elasticity of output with respect

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[*] For similar evidence in the United Kingdom, Mexico and the United States, see A. Marvin and G. Psacharopoulos, "Schoolig and income distribution", *Review of Economics and Statistics,* August 1976.

[**] For two rather remote attempts regarding the United Kingdom, see D.J. O'Keefe, "Some economic aspects of raising the school leaving age in England and Wales in 1947", *Economic History Review,* August 1975; and J. Sheehan, "Economic Aspects", Chapter 4, in J.W. Tibble, ed. The *Extra Year,* Routledge & Kegan Paul, 1970.

Table 4

LABOUR FORCE, 10-14 YEARS OLD, BY OCCUPATIONAL GROUP, 1971

Occupation	Number of persons
Farmers, forestry and related workers	35 460
Craftsmen and labourers (not in agriculture)	21 360
Service workers, tradesmen and craftsmen	7 160
Other	1 860
Total	65 840

Source: National Statistical Service of Greece, *Population Census* 1971.

to labour is unity, ROSLA could result in an equivalent reduction in output. But at the same time it could be argued that in the long run this output could be recovered with a profit because of the higher productivity of the graduates of the new school system. Also, this reduction in employment must be "employment-generating", in the sense that the overall unemployment rate must be reduced, at least in the few years during and immediately after ROSLA. The reason is that there will be pressure in the higher skill market, as the supply of the 13-15-year-olds will be reduced. After the new graduates appear, unemployment among them is bound to increase. Once more this assertion is based on other studies which have shown that unemployment is at its highest among graduates of the secondary level.*

As shown earlier in Table 1, it is estimated that there will be an additional 31 000 graduates from the last year of the compulsory cycle, which represents a 39 per cent increase in the number of graduates from today's corresponding grade. A second question that arises is: On the assumption that the new law will become fully effective, where will the extra graduates go? The answer to this question depends upon how different groups in the population will be affected by ROSLA.

In the first place, a large number of students will be totally unaffected because they would have anyway continued their education beyond the age of 12. These are mainly students in urban areas with adequate secondary school provision and high social demand for education.

The 114 000 students who will be affected by the new law could be divided into three categories:

a) those who were judged by the set academic standards unable to enter secondary general education;

b) those who, although academically capable, were obliged not to continue their education for financial reasons; and

c) those who voluntarily had elected not to continue their education, although they were academically capable and they had the financial means to do so.

It is not possible to have an arithmetic breakdown of the 114 000 students into three groups. However, the high proportion of farmers and labourers in Table 4 suggests that the majority of those affected will be in group (b) above, i.e. they represent academically able students, who, because of the lack of financial opportunity, are obliged to terminate their studies at the age of 12. At this point, "financial opportunity" does not only imply the direct cost of schooling (which by law is nil at this level of education) but mainly the foregone earnings or lost agricultural production that these children represent to their families.**

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* See G. Psacharopoulos, *Earnings and Education in OECD*, Paris, 1975, p. 156.

** This is one reason for which the new law might not become fully operational, i.e. because of the resistance of some parents to send their children to school.

Now, given the socio-economic background of the 31 000 extra gymnasium school graduates, one should expect most of them to enter directly active lives – an entry that for most of them was already delayed by three years. For this reason one should not expect the ROSLA to have a very significant impact on the demand for places in the lycea and universities. And for the same reason the voluntary extra demand for places in secondary technical education is expected to be small. Furthermore, the high majority of affected children working in agriculture implied in Table 4 is bound to mitigate the visible adverse employment effects. Regarding the rest, the employment effects depend upon whether these children will continue their education or will simply enter the labour market. The immediate employment effects for those who will enter the labour market will be adverse*, but these will gradually fade out as the economy adapts to the new skill mix.

By way of summary, the likely economic effects of the Greek ROSLA will be beneficial, especially in the long run. At the same time, one should not expect these effects to be very dramatic in their magnitude. To this add the possible delay in the implementation of the new law because of the capital expenditure required and the resistance of some families to send their children to school beyond the age of 12.

The extra 3 years will have some adverse short-run effects on the labour market and the budget of some poor families. But these effects could be mitigated by state financing of the opportunity cost of schooling for selected population groups.

THE REFORM OF TECHNICAL AND VOCATIONAL EDUCATION: LAW 576/1977

On 7 April 1977 the President of the Greek Republic signed Law 576 "On the Organisation and Administration of Secondary and Higher Technical and Vocational Education", the entire text of which was published in the Government Gazette on 13 April 1977. Thus the second major piece of legislation, on technical education policy, entered the statutes as complementary to the first, Law 309/1976, on general educational policy. This final outcome was the calculation of a series of events going back to early 1975, and a process that has been characteristic of the Greek educational policy-making.

1. The formulation of the technical/vocational education policy

The Vocational Education Work Group (1975)

Very soon after the elections of November 1974 (in January 1975), the government appointed a high-level work group** "to study the various aspects (topics) of vocational education and to submit its findings"***. The Vocational Education Work Group submitted its report in July 1975.

Four major topics (areas of study) were examined in this report:

- the structure and levels of vocational education
- the broader education system

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* Especially when one thinks that the 3-year gymnasium certifiate may raise their job expectations and make them reluctant to enter manual jobs.

** The group was headed by P. Sakellaridis, former rector of the National Technical University (the Polytechneion), and included economists, high-ranking government officials and teachers in higher technical schools.

*** *Report of Working Group for the Study of Topics Pertaining to Vocational Education* (in Greek), mimeographed. Hereafter cited as Sakellaridis Report.

- employment rights
- teaching personnel

The Work Group diagnosed several weaknesses in the existing system. The institutional structure of vocational education and the various types of schools (lower, secondary and higher) were not adequate for the satisfactory preparation of the different levels of manpower that were needed for production. The existing pattern of student flows into the system was "symptomatic" and unplanned, and there was an absence of direction and orientation on the part of Greek youth. According to this Group, the main "causes" of this unsatisfactory state of affairs were:

i) Absence of vocational orientation.
ii) Lack of information, and scepticism about vocational opportunities.
iii) The traditional lack of respect for vocational education.
iv) The shortcomings of the education system to meet satisfactorily educational demands.
v) The delay in the development of vocational and technical education.
vi) The erroneous view that vocational education seeks to develop vocational skills only.*

To remedy some of these weaknesses, a reorganisation of the structure of technical/vocational education was recommended and estimates were made of the desirable flow of students into the various levels and types of schools. One noteworthy innovation suggested by this Group was the operation of *lower-level secondary schools that would combine general education with "vocational orientation"*. It was deemed desirable that this type of school be ultimately established as the first level of secondary education. In the meantime, such schools would follow the six-year elementary level; they would be of three years' duration (ages 12-15), and they would function parallel to the three-year gymnasium with which they would also be equivalent. (It should be noted here that behind this recommendation was the idea that secondary general education would be divided into two three-year cycles, a three-year gymnasium (ages 12-15), and a selective three-year lyceum). Another innovation was that selection would take place at the completion of the three-year lower secondary cycle for entrance into either the general lyceum or the second three-year level of technical/vocational schooling. The leaving certificate of these two types of upper secondary schools would be equivalent for all purposes except if a student wished to sit for the entrance examinations into AEIs. For this purpose, an additional "preparatory" stage would be required."**

Other more general recommendations made in this report were that:

"*a*) The education system should be essentially open so that students may be able to move in all directions with the least possible loss of time...
b) Ways and means (incentives) should be studied and incorporated into law, whereby the flow of students would be gradually adjusted to desirable targets, and students will be drawn to areas of specialisation that are necessary for the development of the country.
c) Top priority be given to supplying in full technical education with adequate personnel and to the provision of sufficient and suitable units and equipment.
d) Programmes of study be modernised in a way that will allow the quick adjustment of students and graduates to the manpower needs of the economy... bearing in mind that the precise identification according to area of specialisation of such needs in the next 10 to 15 years is a difficult

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* *Ibid.*, pp. 6-7.
** *Ibid.*, pp. 7-9.

task, particularly for a developing economy such as ours.

e) Higher technical and vocational education be the exclusive responsibility of the State...

f) A mechanism (organ) be set up to coordinate the activities and programmes of all the agencies involved in vocational education and to solve the problems that arise from time to time."*

Law-Plan (Nomoshedio) on Technical/Vocational Education, and Law 576/1977

The report of the Vocational Education Work Group was submitted to the Minister of Education and discussed at a meeting of high-level government officials, at which also the basic principles of a law-plan were laid. Subsequently such a plan was drafted by designated officials of the Ministry, as is the customary procedure in educational policy-making.

The Law-Plan "On the Organisation and Administration of Secondary and Higher Vocational and Technical Education" was submitted to the General Accounting Office in July 1976. At the same time, it was sent to various educational circles soliciting their views, and it appeared in the local press.

As with its precursor on general education, the proposed bill on vocational/technical education aroused so much interest and controversy, that the Law-Plan was discussed further among official circles and thoroughly revised. It was then introduced into Parliament (Voule) for debate and final action on 23 February 1977. And after additional discussion inside and outside the Chamber, it was voted into Law 576/1977.

The Law-Plan and Law 576 deviated from the recommendations of the Vocational Education Work Group examined above in that they did not provide for a lower level secondary school of general-cum-vocational orientation. Vocational/technical education would begin after the completion of a nine-year compulsory general course and would be of two kinds: a two- to four-semester course given in unselective vocational/technical schools and the lycea would combine general education with vocational or technical training so that, in the words of both documents, students would be able to contribute effectively to society as "free and responsible citizens".

The Prefatory Statement attached to the Law-Plan noted that the technical lyceum would be equivalent to the general lyceum, as established by Law 309/1976, and would allow a student to continue his education into higher technical schools. As finally legislated, students attending a technical lyceum could compete for entrance into "highest" institutions as well, provided they satisfied the same additional course requirements as the students in the general lyceum, and participated in the same panhellenic examinations.

Another important aspect of the new vocational/technical policy was the organisation of tertiary technical education, especially the Centres of Higher Technical and Vocational Education (KATEEs).

2. The rationale of the new policy

The new technical education policy framework was in part dictated by prior policy decisions. For example, the abolition of lower vocational schools followed necessarily from the raising of the school-leaving age (the nine-year compulsory education), which was both a constitutional mandate and an educational policy decision (Law 309/1976). There were, however, other more directly germane considerations.

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* *Ibid.*, pp. 19-20.

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Alternatives to the "monolithic" gymnasium

The technical lyceum provides an alternative type of post-compulsory secondary education to the traditional and rather monolithic six-year gymnasium.

As an adequate number of technical lycea become fully equipped, a more balanced distribution of the student population, as between general and technical/vocational schooling, will result. When the Law-Plan was introduced into Parliament, the Under-Secretary for Education pointed out that, according to the 1974 UNESCO Yearbook, Greece lagged behind most other Western European countries in the proportion of students attending technical and vocational schools vis-à-vis those in "six-year gymnasia". In Greece, 22 per cent of all those enrolled in post-primary schools were in the former types of institutions as against 78 per cent in the gymnasia.* "With these measures", according to the Prefatory Statement to the Law-Plan, "and the qualitative improvement of vocational education, we believe that the percentages of student flows will change in favour of vocational education which today enrols only 20 per cent of the student population at the secondary level while in the countries of the European Economic Community the percentage ranges from 50 to 70".** This proportion was believed to be imbalanced for several purposes, e.g., admission into AEIs, economic development, employment opportunities, unemployment and under-employment, personal satisfaction, and so on.

Relief of pressure for admission into AEIs

The type of reorganisation in the general and the technical/vocational system of schooling embodied in Laws 309 and 576 was part of the government's policy to resolve what were felt to be serious problems created by the increasing individual demand for tertiary education, especially into AEIs. In the last 20 years, and more so since the late sixties, the ranks of "candidates" seeking admission into AEIs and non-university level higher institutions have been increasing by the thousands. This, taken in conjunction with the existence of a numerus clausus for admission into tertiary institutions, has caused serious bottlenecks at the point of entry into AEIs and "higher" schools, with all the attendant social and psychological consequences.

It is anticipated that the new arrangements will ultimately draw more students into the technical/vocational branch (secondary and higher). This will alleviate the pressures for university admission by allocating a number of students into the technical lycea and would strengthen the KATEEs.

Training of manpower for economic development – economic efficiency

A presupposition of the new policy is that the reform will provide the basic institutional structure for the education and training of various levels of manpower essential for increased productivity and economic development. This is felt to be especially crucial for the future of the country in view of its entry into the European Economic Community. The development benefits of technical education were stressed on several occasions by the Under-Secretary of Education in his introduction of the Law-Plan. For example, at one point he stated:

"The strengthening and consolidation of technical and vocational education constitutes a necessary and basic presupposition for the future course and development of our country. The projected entry of Greece into the European Economic Community demands, in particular, that the country be equipped, qualitatively and quantitatively, with the appropriate manpower that will ensure her beneficial and equal participation in the European Community.*

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* See *Praktika Voules* (Parliamentary Proceedings), 23 February 1977, p. 3359.

** Prefatory Statement to Law-Plan "On the Organisation and Administration of Secondary and Higher Vocational and Technical Education", p. 2. Hereafter cited as Prefatory Statement – Vocational.

And at another:

"Education is an investment in fixed capital since it creates the human resources which are required for the economic, social and cultural development of the country".**

Parity of esteem and equal opportunities: social equity

As implied above, the aim of the government policy is to establish the preconditions so that the two types of lycea (general and technical) will enjoy "parity of esteem". To this end, several steps have been taken. Law 576 itself provides that "the graduates of technical and vocational lycea may be appointed to positions in the public sector or public enterprises for which the school-leaving certificate of a lyceum or a six-year gymnasium is the required qualification" (Article 51, par. 4). In addition to such employment opportunities, the two types of lycea are, by the same law, essentially equivalent for purposes of admission into AEIs (Article 10). Other measures to ensure parity include:

a) The system of examinations for entrance into the lycea (they are basically similar for both types of schools);
b) the qualifications of the teaching staff (teachers of the theoretical/scientific subjects as well as of the general ones hold university degrees/diplomas, while those of technological subjects and workshops are graduates of Technical Universities, KATEEs and SELETE); and
c) the curriculum (it is not narrowly and exclusively "vocational" but includes a balanced proportion of general and specialised subjects).***

Indeed, students opting for the technical/vocational lycea will have more advantages than their counterparts in the general schools. For, in addition to parity in terms of employment and access to AEIs, they will be better equipped to enter working life upon completion of their studies. Their education in the lyceum will be directed towards middle-level occupations which are increasingly in demand.

There is yet another side to the parity issue, the diversification of post-compulsory schooling and the technical education policy in general. From the government's standpoint this aspect of the reform will elevate the traditionally low status of technical education and will provide options, hence opportunities, for students to pursue an education according to their aptitudes and inclinations. "It should be made clear once and for all", the Under-Secretary for Education reiterated, "that the purpose of technical and vocational education is not to be of service to the academically poor students, but to those whose abilities and interests demand that they enter active economic life more rapidly and more productively".**** In this sense, one could say the new policy will serve the interests not only of economic efficiency but of social equity as well.

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* *Parliamentary Proceedings, op. cit.*, p.3359.

** *Ibid.*, p. 3358. Similar views were expressed by spokesmen for EDEK, the major party of opposition. See, for example, the speech by E.P. Papanoutsos, *Ibid.*, p. 3364.

*** For a clear statement on the government's rationale regarding parity of the general and technical/vocational lycea, see the article by G. Ralles, Minister of Education at the time, entitled "New Institutions (Law) in Education", *To Vema*, February 1979.

**** *Parliamentary Proceedings, op. cit.*, p. 3360.

Social stability

Among official circles there was general acceptance of the widely held view that the social status of technical/vocational schooling was comparatively low. It was believed that among other consequences the differential benefits (in terms of status, prestige, conditions of work, even earnings) that accrued from vocational as against general education exacerbated social conflict and discontent. The new arrangements, according to official spokesmen, will help in wiping out "preconceptions and distinctions, which oftentimes are the major cause of social conflicts and disturbances".*

3. Reaction to the new policy

It was quite natural and quite within the democratic liberal tradition of the country that such an important step to reorganise technical and vocational education should have become the storm centre of debate and controversy. Political, professional, business, worker and other interest groups, students, parents, educational pundits, scholars and the press expressed their views in public forums, in mass media, and through deputations to the Minister and the Under-Secretary of Education as well as to other high-ranking public officials. A full analysis of this interesting aspect of the reform policy would take us far beyond the reasonable limits of this report. Suffice it to present some illustrative examples of the reaction to the policy and, in its turn, the government's response to such reaction.

Inside the Chamber of Deputies (the *Voule*) the National Democratic Centre, at the time the main party of opposition, through its official parliamentary spokesman generally supported the bill. As with Law 309/1976 on the reorganisation of general education, there was considerable congruence on the more substantive aspects of the technical education bill and its rationale between government and official opposition. On the negative side, however, the main party of opposition pointed out that, for the implementation of the measures, the reform left too much to too many "presidential decrees"; there was no reference to private technical education; and there had not been sufficient participation in the formulation of the policy by the industrial and the commercial world.**

The most critical reaction came from the political parties of the left, which marshalled similar arguments against the technical/vocational education bill to those presented in their opposition to the general education reforms.***

It is appropriate to point out that all sides of the political spectrum shared the belief that the needs of economic development mandated adjustments and investments in the educational enterprise, and more so in the technical/vocational component. The reform and development of education in general, and technical/vocational schooling in particular, were felt to be basic desiderata for economic growth and prosperity. Some members of the opposition raised questions not so much on the developmental role of technical education as on the differential distribution of the benefits that would result from increased economic productivity.

The government, through the Minister of Education, responded to the criticisms of the political opposition and reaffirmed the basic rationale of the new policy. The new organisational framework, according to the Minister, will provide the opportunity for the students to choose according to their aptitudes and inclinations. At the same time, it will give a large number of them appropriate training to enter the world of work immediately upon graduation. As to the role of the State vis-à-vis the individual in a liberal democracy, he had this to say:

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* *Ibid.*, p. 3358. Also see statements by other suppoters of government policy, *Ibid.*, p. 3368.

** *Parliamentary Proceedings*, 23 February 1977, pp. 3363-3367.

*** *Parliamentary Proceedings*, 23 February, 1977, pp. 3372-3381, and 24 February 1977, pp. 3412-3413.

> "The State performs its duties. It creates the framework and Parliament enacts laws. The Budget provides the necessary funds. There is nothing that we can do beyond that; we cannot use compulsion. Only if they (parents and students) themselves realise where their interests lie, will we be able to succeed in this great undertaking that is under way".*

Public and professional opinion outside Parliament in general reflected similar variations (for and against) as that inside. One sees the same concern regarding "parity of esteem" between the two main types of lycea, and the same fear lest technical/vocational education should be of lower quality than general and the refuge of the less privileged segments of the population.

IMPLEMENTATION AND EVALUATION OF THE TECHNICAL/VOCATIONAL EDUCATION REFORM

The task of implementing the new policy directives regarding technical/vocational education was as complex as it was immense. The policy goal of strengthening this type of education and bringing about what was considered to be a more appropriate balance in student flows between general and technical schooling required, among other things, that:

a) suitable building units and equipment be found;
b) new curricula be designed that would satisfy the general and technical/vocational components of the programme;
c) new textbooks be written or adapted from those available;
d) qualified personnel be secured; and
e) systematic efforts be made to allay public anxiety and ambivalence, and to create a more favourable attitude towards technical and vocational schools.

Technical and vocational lycea went into operation in 1977-78. The technical and vocational department of KEME has developed programmes of study and the syllabuses for all three classes of these schools and for all areas of specialisation, as envisaged by Law 576. Hence this coming year, i.e., 1979-80, all technical/vocational lycea will be functioning on a newly organised full three-year programme. At the same time, KEME has designed the curriculum of the two classes of the new technical and vocational schools, again as envisaged by Law 576.

Because of the large number of textbooks that are needed for this type of education, the preparation of such materials for the many areas of specialisation has been assigned by the Ministry of Education to the Evgenidio Foundation, a well-known establishment with a highly respected tradition in the production of technical/vocational education texts. This year all textbooks for the three classes of the lyceum will have been prepared.

In 1978-79, there were 96 technical and 99 vocational lycea with 27 802 students enrolled in the first and second classes. Most of these schools operate in buildings which previously housed the schools for foremen. Five new technical and six vocational lycea will be added to the above in 1979-80. The regional distribution of these schools is presented in Table 5 below.

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* *Parliamentary Proceedings*, 24 February 1977, p. 3402.

Technical lycea offer several areas (sections) for specialisation, e.g., mechanical, electrical, building, chemical-metallurgical, nautical-commercial and textile. The vocational lycea provide programmes in administration, agriculture, social welfare and applied arts.

Table 5

DISTRIBUTION OF TECHNICAL AND VOCATIONAL LYCEA
AND STUDENTS BY REGION, 1978-79

Region	Technical lycea		Vocational lycea		Total	
	Schools	Students	Schools	Students	Schools	Students
Central Greece	34	6 108	35	5 113	69	11 221
Peloponnesos	11	1 405	11	1 320	22	2 725
Ionian Islands	4	209	4	302	8	511
Epirus	5	339	5	472	10	811
Thessaly	5	1 135	5	1 135	10	2 270
Macedonia	22	3 670	22	3 109	44	6 779
Thrace	4	458	4	506	8	964
Aegean Islands	5	386	7	313	12	699
Crete	6	809	6	953	12	1 822
Total	96	14 519	99	13 223	195	27 802

Source: Ministry of Education, Directorate of Technical and Vocational Education.

As with the general education law, it is not possible at this time to make a thorough or extensive assessment of the new technical/vocational measures. The implementation phase is still in progress and research on the various dimensions of technical/vocational education in Greece is extremely limited. What follows are:

a) some general thoughts based on inferences from anecdotal or other scanty evidence, and
b) an assessment of the likely effects (economic and social) of the changes, based on some previous evidence regarding the performance of the system thus far and the international literature on this subject.

1. The contribution of education to Greek economic growth

Two past attempts were made to estimate the extent to which education has contributed to Greek economic growth, one using data for the period 1951-1961 and the other for the period 1961-1971.* Both studies applied essentially the same technique, namely, "growth accounting", which was first used by Denison and then extended by others.** The technique amounts to measuring over time increments in the quantity and quality of productive factors like labour, physical capital and education and relating them to the growth of national income. The Bowles study concluded that in Greece education contributed a mere 3 per cent to the rate of growth of output during the 1951-1961 period. That is, if the economy grew at an average annual rate of growth of 6 per cent, education was responsible for 0.18 percentage point of it. The second study, by Psacharopoulos and Kazamias, concluded that the contribution of education to the growth of output in the 1961-1971 period was of the order of 2 per cent, thus validating the low contribution of education to Greek economic growth.

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* See S. Bowles, "Growth effects of changes in labourquality and quantity, Greece 1951-1961" in H. Chenery, ed., ***Studies in Development Planning,*** Harvard University Press, 1971; and G. Psacharopoulos and A. Kazamias, ***Study of the Development of Post-Secondary Education,*** Greek Ministry of Education, 1978, section 17.1 (in Greek).

** See E.F. Denison, ***Why Growth Rates Differ?*** The Brookings Institution, 1967.

It appears that the major factor for the high rate of growth of modern Greece has been the accumulation of physical capital. The second study cited above has found that the corresponding statistic to the 2 per cent contribution of education to economic growth was 50 per cent for the case of capital.

Does this finding mean that the kind of human capital created by the Greek education system was not of the "right sort", or that it was of the general rather than technical kind? This interpretation does not necessarily follow, as explained below.

2. The economic efficiency of technical education in Greece

In order to answer the question posed above, one needs to perform a more micro-oriented analysis of the costs and benefits associated with technical/vocational education, as aggregate growth accounting is inherently too micro-oriented. Such analysis has been attempted by Psacharopoulos and Kazamias in the aforementioned study and has yielded the following results.

On the benefits side, technical education in Greece confers economic benefits in excess of those of general education. Table 6 gives some comparative statistics in this respect.

Table 6

MEAN ANNUAL EARNINGS BY LEVEL AND KIND OF EDUCATION, 1977

(in drs.)

Educational qualification	General	Technical
Secondary school graduate	182 712	193 487
Post-secondary, technical college graduate	-	236 267
University graduate	231 105	-

Source: 1977 Employee Survey in Psacharopoulos and Kazamias, *op. cit.*

On the cost side, however, technical education is more expensive than genera education. Table 7 compares the cost of the two kinds of education.*

Table 7

COST PER STUDENT BY LEVEL AND KIND OF EDUCATION, 1977

(in drs.)

Educational level	General	Technical
Secondary	9 258	13 963
Post-secondary technical college		
a) before KATEE	-	21 980
b) after KATEE	-	35 848
University	31 110	—

---

* This is the marginal economic (rather than average accounting) cost. It represents the out-of-public-funds expenditure associated with accommodating an extra student of the respective educational level. See P.H. Coombs and J. Hallak, *Managing Educaional Cost*, Oxford Univ. Press, 1972.

Table 8

THE PROFITABILITY OF INVESTMENT IN EDUCATION

Educational level	General	Technical
3 last years of secondary	6	10
Technical colleges (pre-KATEE cost)	-	6
University	5	-

Source: Psacharopoulos and Kazamias, *op. cit.*, Tables 19.1 and 19.4, pp. 269-271, 277-281

Two cost figures are presented for post-secondary technical education, one referring to the period before the institutions of KATEEs and one after the KATEEs. The combination of these costs and benefits gave the rates of return for technical education shown in Table 8 which are also compared to some levels of general education.

Two remarks follow from the orders of magnitude given in Table 8. First, on a relative basis, secondary technical education appears to be more profitable than secondary general and hence the policy switch towards technical education appears to be justified. On an absolute basis, however, the figures shown in Table 8 are very modest. Certainly, there are investment areas in the Greek economy exhibiting a yield above 10 per cent.

The second remark refers to the fact that figures as the ones cited in Table 6 are historical, i.e., they are based on the past cost of schools and earnings history of individuals. When a major structural change takes place, as the one represented by Law 576/1977, both costs and benefits associated with different kinds of education are likely to alter in the future. For example, if technical lycea are to be of the same status and quality as the general ones, the per-student cost of technical education will rise relative to the general stream. Also, if technical lycea produce graduates of different quality in the future, this will certainly affect the future monetary reward structure (read productivity) in the Greek economy. It is impossible to predict what the net outcome will be. When considering educational expansion under structural change, the returns to education may go up, go down or simply (although unlikely) remain the same. It is for this reason that one should consider alternative non-monetary criteria when analysing the likely welfare effects of an educational reform.

3. Status and equity

Law 576/1977 must have an equalising effect so far as the monetary rewards are concerned. The reason is that, according to evidence cited above, the provision of technical education has an income-augmenting effect. Therefore, it pushes the person who receives it up to a higher income level with the result of lowering a given income inequality statistic (such as the variance of the logarithm of earnings considered earlier in the case of general education).

In the case of technical education, however, another non-monetary dimension must be brought into the analysis. This is the status-granting role of schooling. As in every society, education in Greece is seen by the public as a potent vehicle for upward social mobility. In Figure C, arrows A, B, C and D are associated with strong path coefficients, whereas father's status exerts much less influence on subsequent success in life.* Until the period of the recent reforms, technical education in Greece did not enjoy the same prestige as general education.

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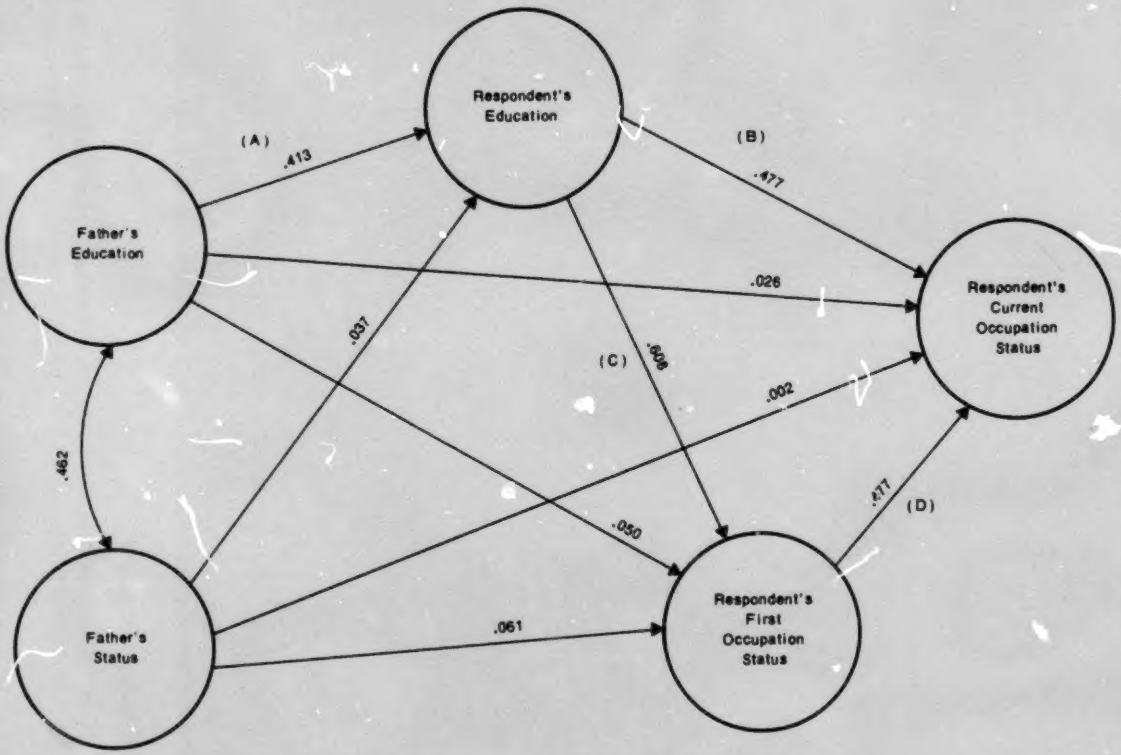
* The data base refers to those aged 25-35 in the 1977 employe survey in the Psacharopoulos and Kazamias study.

Figure C

THE STATUS GRANTING ROLE OF EDUCATION



Source : G. Psacharopoulos and A. Kazamias, *op. cit.*

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Some of the main reasons for the reluctance to follow a technical course have been:

- *i)* fear of not entering into higher education;
- *ii)* fear of entry into professions with low social prestige;
- *iii)* technical/vocational education was generally of lower quality and status than general education;
- *iv)* as evolved and institutionalised, the Greek concept of liberal education and the educated man was defined in general, humanistic-cum-literary terms. Technical or vocational schooling was not regarded as true education (paideia, culture).

The 1977 employee survey in the Psacharopoulos and Kazamias study has quantified this "fear". Those with higher technical education enter lower status jobs, remain at a lower status and are not as occupationally upwardly mobile in comparison with those who have a university education.

Table 9

THE OCCUPATIONAL STATUS PERFORMANCE OF DIFFERENT KINDS OF GRADUATES

Educational level and kind	Mean first occupation status	Mean eventual occupation status	Percentage changed jobs
General education			
– primary	32	32	47
– 3 years secondary	35	35	50
– secondary graduate	43	45	63
– university	56	59	71
Technical education			
– lower	40	41	53
– secondary	45	48	52
– higher	52	55	58

Source: Based on the 1977 employee survey in Psacharopoulos and Kazamias, *op. cit.*

To the extent that Law 576/1977 will push some pupils into a stream they (and their family) do not want, its effects will be inequitable. However, this does not deny the fact that the quality of higher education instituted by the Law will be different from the one offered in the past and hence it might be gradually accepted by the public at large. It is not possible to speculate on the number of years it would take for the required change in social mentality.

4. Employment effects

How does the incidence and duration of unemployment compare for the general versus technical education graduates? Once more, partial evidence exists regarding the old system:

- In a survey of 25 employers in 1977 the clear preference of those hiring was for "general, problem-solving qualities" of the job candidate rather than specific practical training.*

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* See Psacharapoulos and Kazamias, *op. cit.*

– The 1977 employee survey already referred to had some data on unemployment for those who had acquired a technical education degree from 1971 onwards. As shown in Table 10, secondary technical education is associated with longer search time for finding a first job and with unemployment thereafter.

Table 10

MEAN SEARCH TIME FOR FINDING FIRST JOB AND UNEMPLOYMENT DURATION

(in months)

Technical education level	Search time	Unemployment duration
Lower	2.4	4.7
Secondary	5.0	7.3
Higher	1.4	6.4

Source: 1977 Employee Survey, Psacharopoulos and Kazamias, *op. cit.*

Once more, this finding that refers to the recent past does not mean that the future output of secondary technical schools (i.e. the technical lycea) will be necessarily associated with increased unemployment as the quality of the graduates might be different.

THE EDUCATIONAL REFORM THAT IS TAKING PLACE: AN EPILOGUE

In the twentieth century, and more so since the Second World War, several attempts have been made by successive governments to modify the Greek education system in order to adapt it to changes in other sectors of the society and to meet the challenges of a modernising and still consolidating nation-state. Yet, for a variety of reasons – political, ideological, social and economic – such efforts have been thwarted, or at best have had very limited success. Educational reform, as this aspect of public policy has come to be known, has been found to be highly elusive and has proved to be one of the most intractable problems that the country has had to face in its turbulent recent history. The discouraging story of this truculent problem has been epitomised rather poignantly in an often-quoted title of a recent book on the subject, which can be translated as "The Educational Reform that Never Was" or "The Educational Reform That Has Not Taken Place".

The current reforms, reviewed in this report, and under way since 1976, presage a new era in Greek education and the broader social, cultural and economic development of the country. They are the most ambitious and extensive ever attempted in this country; they are supported by a broad spectrum of professional and public opinion; and the government, by word and deed, has often expressed its commitment to them as well as its determination to ensure that they are implemented. Moreover, as a result of certain political, socio-economic, cultural and educational circumstances, Greek pedagogy has been infused with new ideas, while the sharpness of certain traditional controversial issues, e.g., the language question, has been considerably blunted. The necessary basic preconditions have been established and are being consolidated. There is every reason, therefore, to be optimistic and to believe that the educational reform that *is* taking place will not suffer the fate of previous efforts.

It would be difficult and perhaps superfluous to provide a comprehensive summary of the aims of the current reforms, the policy changes they involved, the measures adopted to implement them, the reactions to them, the quantitative dimensions of the reforms and the prospects for the future. Instead, it would be more useful to conclude this review by restating some of the main thrusts of the reform movement and some of the salient features of the broader conceptual framework within which it was encapsulated.

At one level, major policy decisions, e.g., the extension of compulsory education from 6 to 9 years, the bifurcation of secondary education into common gymnasia and selective lycea, the diversification of upper secondary into general and technical lycea and vocational schools, and the new system of examinations for admission into the lycea and the universities, have laid the foundations for a new institutional framework that will alter the structure and orientation of the Greek school system. Among other salutary effects, these measures will alter the shape of the educational pyramid (by widening the middle rungs for both boys and girls); they will break down the monolithic type of secondary school, namely, the six-year traditional gymnasium and its monopolithic control of access into post-secondary institutions; they will strengthen the hitherto atrophied side of the public system of technical and vocational education; they will remove barriers for uniform nine-year general education for all; and they will ease the transition from school to work and from secondary to higher education.

At another level, changes in the content of education, such as the establishment of the *demotike* as the language of instruction, the use of translations of ancient Greek classics as well as the introduction of technological subjects and cultural activities in the new gymnasium, the revamping of the curriculum and the re-writing of textbooks, the new programmes for the in-service training of teachers (SELME and SELDE), the introduction of electives in the lycea, and the already-mentioned new system of examinations, have established the necessary preconditions for the qualitative upgrading of the schools and the reorientation of Greek pedagogical culture.

These educational policies and reforms have been inspired and activated by similar ideas, principles and concerns as comparable changes in other Western liberal democracies. Educational reformers, political leaders and social analysts in these societies have frequently used the terms "modernisation" and "democratisation" as concepts to describe specific policy changes and as organising guiding principles towards which reform efforts have been directed. The same conceptual and ideological categories have been employed in connection with the educational reforms that are taking place in Greece today.

All the innovations and changes analysed in this report aim at making the education system more efficient by adapting or adjusting historically evolved educational institutions, ideas and practices to the social, economic, cultural and political demands of a modernising and rapidly developing society. At the same time, there is the realisation that a modern Western education system must also be a democratic system. The reforms seek to expand opportunities and to provide options commensurate with variations in individual endowments and demonstrated achievement. Educational modernisation and democratisation have been arduous tasks in all liberal societies. They have been more so in Greece, a country with deeply entrenched traditions, very limited resources, conflicting ideologies and a history of educational conservatism as well as frequent political changes. But since 1974, the country has enjoyed unprecedented stability; educational and public opinion has been more receptive to modern currents of thought, and as noted earlier, the political leadership of the country has repeatedly stressed that it is determined to see that the reforms are successfully carried out.

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